AN INVESTIGATION OF THE PEAT RESOURCES OF NEW BRUNSWICK

Open File Report 83-10

ISSN 0712-4562

NATURAL RESOURCES AND ENERGY
NEW BRUNSWICK

Gouvernement du Canada
Government of Canada

Expansion Économique Régionale
Regional Economic Expansion

87-05638/

This report has been prepared by:

Minerals and Energy Division
Department of Natural Resources & Energy
Province of New Brunswick

Hon. Malcolm N. MacLeod, Minister

1987

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This project was funded by the Province of New Brunswick and the Canada Department of Regional Economic Expansion. Financing was, in part, under the Minerals and Fuels Subsidiary Agreement of the Canada-New Brunswick General Development Agreement, in part, under the North East Subsidiary Agreement, and in part, under the Developing Regions Subsidiary Agreement.

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1987

Report No.: Open File Report 83-10

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Catalogue No.: ISSN 0712-4562

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Department of Natural Resources and Energy
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2. PEATLAND MAPS AND CROSS SECTIONS (PROFILES)

The locations of the 289 sets of peatland maps produced from the project are illustrated on Plates 83-10A to 83-10F. See Figure 4 for the index to these plates. In addition to the base map (which normally is dispersed only if specifically requested), each set contains, as a minimum, an isopach map. For 160 sets, elevation maps are also available (i.e., those that include peatlands studied in detail using a "grid"). As can be seen on the index plates, more than one peatland commonly occurs on an individual map. Appendix 2 provides a cross reference of Bog No. to Peatland Map No. The first page of the Summary Description for each peatland (Figure 6) also indicates the associated Peatland Map No.

Each of the 160 sets that have elevation data (comprising the 214 peatlands surveyed using a grid) also have associated cross-sections, which display the peat types and their degrees of humification for each survey line. More than one line often occurs on a single sheet of profiles. There are a total of 458 sheets displaying the 1137 lines. Appendix 3 gives a listing of Peatland Map No., Bog No., and the number of associated profile sheets and lines. Back pocket No. 2 contains an example set of these maps as produced from a 14.5X enlargement of the microfiche (i.e., at 1:20 000 scale). The original maps are double the size contained in the pocket (i.e., 1:10 000 scale). Either scale can be obtained on request.

ABSTRACT

More than 20 000 field sites were investigated on 817 peatlands to acquire data on the peat and peatland resources of New Brunswick. At each site a peat core was examined to determine the depth, botanical composition, von Post degree of humification and other characteristics. Sample cores for various physical and chemical analyses were collected at 243 sites on 215 peatlands. A custom computerized data management system has been created to allow retrieval at the site, deposit, and regional levels. The compiled data are portrayed on 289 sets of maps and cross sections with written descriptions of each peatland.

The investigated peatlands constitute nearly 95% (132 524 ha) of the estimated total area in the Province and have a total volume of over 2 400 000 000 m^3 of peat. About 51% (67 867 ha) was found to have a peat depth greater than 1 m and is considered to be potentially mineable. This area comprised a volume of 2 100 000 000 m^3 with 1 300 000 000 m^3 classed as surficial (H1-H4) and 800 000 000 m^3 as humified (H5-H10) peat. Sphagnum-dominated peats constituted 84% of the volume and 96% of the surficial layer. A peat type of 100% Sphagnum constituted 68% of the surficial layer. Carex-dominated (sedge) peats constituted most of the remainder of the peat layer. Ombrotrophic raised bogs, frequently with pronounced concentric domes, were the most common peatland type. Seven peatland regions have been recognized with peat stratigraphy used as the primary criteria for grouping. Utilization potential closely relates to this stratigraphy. Large reserves of poorly decomposed Sphagnum, considered high quality for horticultural purposes, occur in several regions. Reserves of peat considered to be a high fuel quality are less common but several deposits, mainly in the south of the Province, have development potential.

Peat is a quarriable substance in New Brunswick and ownership rests with the landowner. Sixty-five per cent of the investigated area of peatland is on Crown land.

More than 20 peatlands are currently leased from the Province for the production of horticultural peat. Other existing utilizations include agricultural development, enhanced waterfowl habitat, and recreation/conservation uses. The inventory data provides sufficient information to assess the utilization potential of each peatland. The compiled information is an initial step in the formulation of a long-term resource management strategy to ensure this nonrenewable resource is utilized in a manner that contributes the maximum benefit to the Province.

RÉSUMÉ

Plus de 20 000 sites ont été prospectés sur 817 tourbières pour recueillir des données sur les ressources de tourbe et les tourbières du Nouveau-Brunswick. Sur chaque site un échantillon a été examiné pour déterminer la profondeur, la composition botanique, le degré d'humification sur l'échelle von Post et autres caractéristiques. Des échantillons ont été prélevés aux fins d'analyses physiques et chimiques en 243 sites sur 215 tourbières. Un système informatique de gestion des données a été créé spécialement pour ces analyses afin de réunir des données pour chaque site, dépôt ou région. Ces données ont été portées sur 289 cartes et vues en coupe, avec description écrite de chaque tourbière.

Les tourbières prospectées constituent près de 95% (132 524 ha) de la surface totale estimée pour la province, et contiennent un volume total de 2 400 000 000 m^3 de tourbe. Environ 51% (67 867 ha) ont une profondeur de plus de 1 m et sont considérées exploitables. Cette surface comprend un volume de 2 100 000 000 m^3, dont 1 300 000 000 m^3 superficiels (H1-H4), et 800 000 000 m^3 de tourbe humifiée (H5-H10). La tourbe à prédominance de *Sphagnum* (Sphaignes) constitue 84% du volume et 96% de la couche de surface. Une couche à 100% de *Sphagnum* représente 68 pour cent de la couche de surface. La tourbe à prédominance de *Carex* (laîche) constitue la plus grande partie de la couche de tourbe. Les tourbières élevées ombrotrophes, souvent caractérisées par une convexité centrale prononcée, sont le type le plus commun de tourbière. Sept régions tourbeuses ont été répertoriées, la stratigraphie constituant le premier critère de classification. L'exploitation éventuelle des zones tourbeuses dépend directement de cette classification stratigraphique. D'importantes réserves de *Sphagnum* faiblement décomposé, considérées de bonne qualité aux fins d'horticulture, ont été relevées dans plusieurs régions. Les réserves de tourbe considérées comme combustible de bonne qualité existent en proportions moins importantes, mais de nombreux dépôts, surtout dans le sud de la province, offrent des possibilités de développement.

Etant donné que la tourbe est une substance de carrière Nouveau-Brunswick, le propriétaire foncier jouit de droits d'exploitation exclusifs sur celle-ci. Or la Couronne possède 65% de la région prospectée.

Plus de vingt tourbières sont présentement à bail pour la production de tourbe aux fins d'horticulture. Parmi les autres utilisations, on compte le développement agricole, la mise en valeur de l'habitat de la sauvagine, ainsi que les activités ayant trait aux loisirs et à la conservation. Les données d'inventaire fournissent assez d'information pour évaluer le potential d'exploitation comme première étape de la définition d'une stratégie de gestion à long terme visant à assurer que cette ressource non renouvelable soit utilisée au plus grand avantage de la province.

AN INVESTIGATION OF THE PEAT RESOURCES OF NEW BRUNSWICK

INTRODUCTION

A comprehensive evaluation of the peat and peatland resource in the Province of New Brunswick has been conducted by the Mineral Resources Branch of the Department of Natural Resources. The data acquisition project was carried out in cooperation with the Canada Department of Regional Economic Expansion. The compiled information enables enlightened resource management, which is consistent with the objective of ensuring the resource makes the maximum contribution to the long-term social and economic development of the Province. The availability of the resource information necessary for site selection and feasibility assessment provides enticement for private-sector investment in peat extraction and utilization.

The collection of the data involved the investigation of 20 451 field sites on 817 peatlands. Each site was drilled with a Hiller auger to recover a peat core. A total of 51 475 m of core was logged according to peat type, degree of humification and other factors. One hundred and thirteen representative sites on 94 peatlands were sampled for determination of fuel quality, while an additional 130 sites on 121 peatlands were sampled for various physical and chemical analyses.

To make the information collected during each field season available to users as soon as possible, an annual Open File Report or manuscript was prepared (Keys 1978, 1979; Keys et al. 1979, 1980; Korpijaakko 1977; Korpijaakko and Pheeney 1976). These reports generally consisted of a one-page numeric summary of each investigated peatland, supplemented by a general description of surface vegetation, peat type distribution and utilization potential. The study areas of these reports were governed by operational rather than logical geographic boundaries. To achieve a more orderly arrangement of the summaries of each peatland, the annual reports have been recompiled. At the same time, the reports were updated using additional information made available by the computerization of the data. Statistics on the sizes of peat mining operations were updated from colour aerial photographs taken in October, 1981.

The objective of this report is to provide a summary of the information available on the peatlands of New Brunswick. To achieve this, a description of the data collection and compilation methods is provided. The types of information available are outlined and examples of the "Summary Descriptions" available for each peatland are explained. The reader who requires more specific information is referred to "A Detailed Guide to Computerized Peatland Inventory Data Files" (Henderson and Keys 1985). That report will be useful to those who are interested in a specific variable on a regional basis.

Appendix I provides a brief numeric summary of all investigated peatlands. The Summary Descriptions for individual peatlands total in excess of 3 500 pages, and do not accompany this report. Instead, the examples shown, together with the index maps contained in the back pocket, should provide the reader with sufficient information to request the Summary Descriptions and associated maps and cross sections for the peatlands of interest (see List of Associated Information, p. v).

PREVIOUS INVESTIGATIONS

Chalmers (1888, 1890, 1895) reported on the surficial geology of New Brunswick for the Geological Survey of Canada and gave locations and brief descriptions of several peatlands. Ganong (1897) investigated several peatlands along the Bay of Fundy coast, and prepared detailed reports on vegetation, peat depths, temperature gradients, water levels, etc. He also reported on a commercial-scale peat harvesting operation located near Spruce Lake, Saint John County, N.B. The peat was mechanically harvested, artifically dried, and baled in less than three hours. The peat was marketed in the United States for use as animal litter. The plant was destroyed by fire in 1895.

Detailed investigations of a number of peatlands in several regions of the Province were completed for the Geological Survey of Canada by Anrep (1917, 1919, 1923, 1927) and Leverin (1940, 1941, 1947). Personnel from the N.B. Department of Natural Resources carried out inventory work, mainly on a request basis, during the 1950s and 1960s. Reports were not produced, but maps completed by Wright, Spence, Hamilton, Clements, and others are listed in Carroll (1977).

A regional study of 34 peatlands between Ontario and Nova Scotia (Auer 1930) included five New Brunswick sites. The report described the peat types, vegetation, and interpretations of the development history of the peatlands. Investigations of the ecological development were also reported in Dansereau and Segadas-Vianna (1952), Korpijaakko and Radforth (1972), Korpijaakko (1976) and Damman (1977, 1979).

Various physical and chemical properties were reported in several of the above reports as well as Stansfield and Nicolls (1918) and Smith et al. (1958).

A preliminary map of muskeg occurrences was produced by Korpijaakko (1975) using computer plotting techniques. Langmaid (1962) estimated the extent of peatlands in the Province from available peatland, soil, and forest inventory data.

In 1974, an aerial photograph study of the Province's peatlands was carried out (Airphoto Analysis Associates Consultants Ltd. 1975). This study located and outlined the extent of each peatland and provided diagrams showing subdivisions of each on the basis of surface vegetation and morphology. Although some ground truthing was carried out to verify vegetation units, the study did not provide an adequate three-dimensional picture of the resource. However, the study was used as the basis for planning field activities for the present project. The numbering system used to identify each peatland in the 1974 study was retained in follow-up investigations.

SCOPE OF INVESTIGATION

The 1975 study by Airphoto Analysis Associates identified more than 810 peatlands. In the course of the inventory program, about 240 additional peatlands were identified and investigated. However, not all of the peatlands identified in the 1975 aerial photograph study were investigated in the field. Deposits less than 25 ha in size were normally not field checked since the small size limited the potential for development. Similarly, peatlands within national parks and military bases were excluded from investigation. Appendix 4 lists approximately 230 peatlands that were identified in the Airphoto Analysis Associates report, but were excluded from the field investigations and states the reason for the exclusion.

A peatland in the geological sense is considered to have a minimum accumulation of 30 cm of peat. The term "wetland" has a broader definition and, in addition to peatlands, includes peat-forming environments such as are found in certain swamps, marshes, and shallow-water ecosystems. Hence, wetlands such as coastal salt marshes, river estuaries, lake margins, paludified forests, and similar environments were generally not within the scope of the inventory program.

PROJECT HISTORY

Field investigations were initiated in 1975 under the direction of E.O. Korpijaakko. The work began in the northeast of the Province since the peat industry was centred in this region. The availability of funding under the Minerals and Fuels Subsidiary Agreement and the North East Subsidiary Agreement of the Canada-New Brunswick General Development Agreement allowed an acceleration of the field program and the retention of full-time project staff. Summer field staff exceeded 20 persons during the peak of the project. The work progressed along the east coast of the Province and gradually moved inland with field work concluding in the southwest of the Province. Funding from 1981 to the conclusion of the project was under the auspices of the Charlotte and Queens-Sunbury segments of the Developing Regions Subsidiary Agreement. The bulk of the field investigations were concluded in 1981 with some field checks carried out during 1982. Most of the report compilation phase was completed in 1983.

ACKNOWLEDGEMENTS

Many people made significant contributions during the course of the project and the task of acknowledging each individual is difficult.

During the peak years of the program, seasonal field staff exceeded 20 persons. While considerable staff changes from year to year were inevitable, the remarkable rate of return of field assistants was instrumental in maintaining an attitude that encompassed a strong work ethic, high standards of quality, and a spirit of comradery. Those individuals who sweated their way through the rigors of the field work developed a pride in their accomplishments that contributed significantly to the success of the project. The authors express the hope that the memories and experiences of these unnamed assistants will provide a greater long-term satisfaction than is possible in a mere expression of gratitude.

Several persons who held senior positions in the field program deserve individual mention. In 1975 and 1976, the program was under the direction of Erkki Korpijaakko. Party chiefs in later years, in addition to the authors, included D. Ferguson, V. Klemetti, R. Doiron, H. Pajunen, H. Tuittila and L. Michaud. Senior assistants included M. Coffey, R. Wilson, A. Anderson, R. Dubasz, W. Buggie, R. Holland, D. Feldman, P. Oudemans, J. MacAllister and S. Boyd.

Numerous members of this group also assisted in the data compilation phase of the program and the major contributions of V. Klemetti, D. Ferguson, and R. Doiron must be acknowledged. Software development for data handling was carried out by Chary Kandalam. D. Ferguson, D. Feldman, and the junior author completed the data manipulation and plotting using the facilities of the University of New Brunswick Computing Centre. D. Blair completed the mammoth task of keypunching all field data. Drafting of all maps was completed by R. Thibodeau of Draftec Ltd. Drafting of profiles was carried out by F. Edney, M. Lindsay, and R. Phillips of the Mineral Resources staff.

Technical assistance and expediting support were provided by R. Phillips and D. Finley. R. Shaw assisted in the final phases of report compilation. Analytical services were provided by the Research and Productivity Council, Atlantic Analytical Services Ltd., and Mineral Resources laboratory staff. Our colleagues at the Hanwell Road office provided their own special brand of relief to the tedium of routine.

Special mention is accorded to Dr. Eino Lappalainen and his associates at the Geological Survey of Finland for their participation in an exchange program from 1977 to 1980. H. Pajunen, H. Tuittila, V. Klemetti, and E. Lappalainen were the Finnish participants in the exchange. The knowledge which they imparted made significant contributions to the quality of the project and strongly reflected the high levels of peat research in their country. The experiences and knowledge gained by R. Wilson, W. Buggie, D. Ferguson, and D. Keys while in Finland were milestones in the development of these individuals.

The authors express their deep appreciation to their former collegue and mentor, Veijo Klemetti, for his patient teachings and logical approach to research problems. D.E. Gemmell deserves full credit for initiation of the project, establishment of its orientation, acquisition of funding, and overall supervision of progress. His encouragement and ability to streamline bureaucratic procedures provided intangible benefits to the project. On the theory that the best is saved for the last, the steadfast contribution of Diane Blair in maintaining her own sanity, as well as those around her, while completing the arduous tasks of data entry, manuscript preparation and typing, and assorted other duties is heartily acknowledged.

To those who have been inadvertently omitted, the authors offer a grateful thank you and the assurance that their contribution is not diminished by the lack of individual mention.

DATA COLLECTION

The peatland inventory techniques used by the Geological Survey of Finland (Lappalainen 1979; Lappalainen et al. 1978) have been modified for use in New Brunswick (Korpijaakko and Pheeney 1977). An exchange program from 1977 to 1980 brought experienced geologists from Finland to the Province to train field staff. Each year one Canadian worked in the field with the Geological Survey of Finland. The exchange program made a significant contribution to the quality standards of the project.

In a project of this magnitude, a certain degree of refinement and evolution of techniques could be expected as experience was gained. Field methods were essentially unchanged throughout the project, but the methods of data handling and presentation underwent significant modification. The inventory methods have been previously discussed in detail (Keys and Ferguson 1982; Keys 1983a; Keys and Henderson 1983) and the material presented here does not differ substantially, but has been included to enhance the completeness of this document.

PREPARATION

Black and white aerial photographs at the scale of 1:20 000 were used in initial planning as well as for determining access and locating positions while in the field. To obtain the required photographs it was necessary to scan the coverage for the entire province. This provided an opportunity to verify the completeness of the study by Airphoto Analysis Associates Consultants Ltd. (1975). In their study an identification number was assigned to each peatland. A number of additional peatlands that were not included in the study were recognized during the search of the photograph library. These were assigned the number of the nearest numbered peatland with a letter suffix. Thus, No. 999A is a peatland near No. 999 that was not identified in the initial study.

The aerial photographs for each peatland were examined using a mirror stereoscope to select the location of survey points. Figure 1 illustrates a typical pattern of survey points. No. 999 is an example of a peatland studied using a grid pattern, while No. 999A was studied using traverse points. Size and potential of a peatland were determining factors in deciding which type of survey to use, but there was not a pre-assigned limit. Small peatlands in close proximity to other deposits were considered to have higher potential than one of the same size in an isolated location. In general, peatlands less than 100 ha in size were not studied using a grid.

When planning the location of survey sites, the objective was to obtain the maximum amount of information with the minimum number of points. When domed areas could be recognized on the photographs the grid lines were planned to cross the areas that appeared to have thickest peat layers. When possible, heavily treed or ponded areas were avoided in order to minimize linecutting difficulties. Since the planning phase was done on an annual basis, the experience gained during each year's field phase could be drawn upon during subsequent planning.

LINECUTTING

The brush hook with a long hooked blade was found to be an effective tool for linecutting. Topofil measuring instruments, an earlier, larger version of a hip-chain, were used to chain distance. The topofil reeled out a disposable thread and

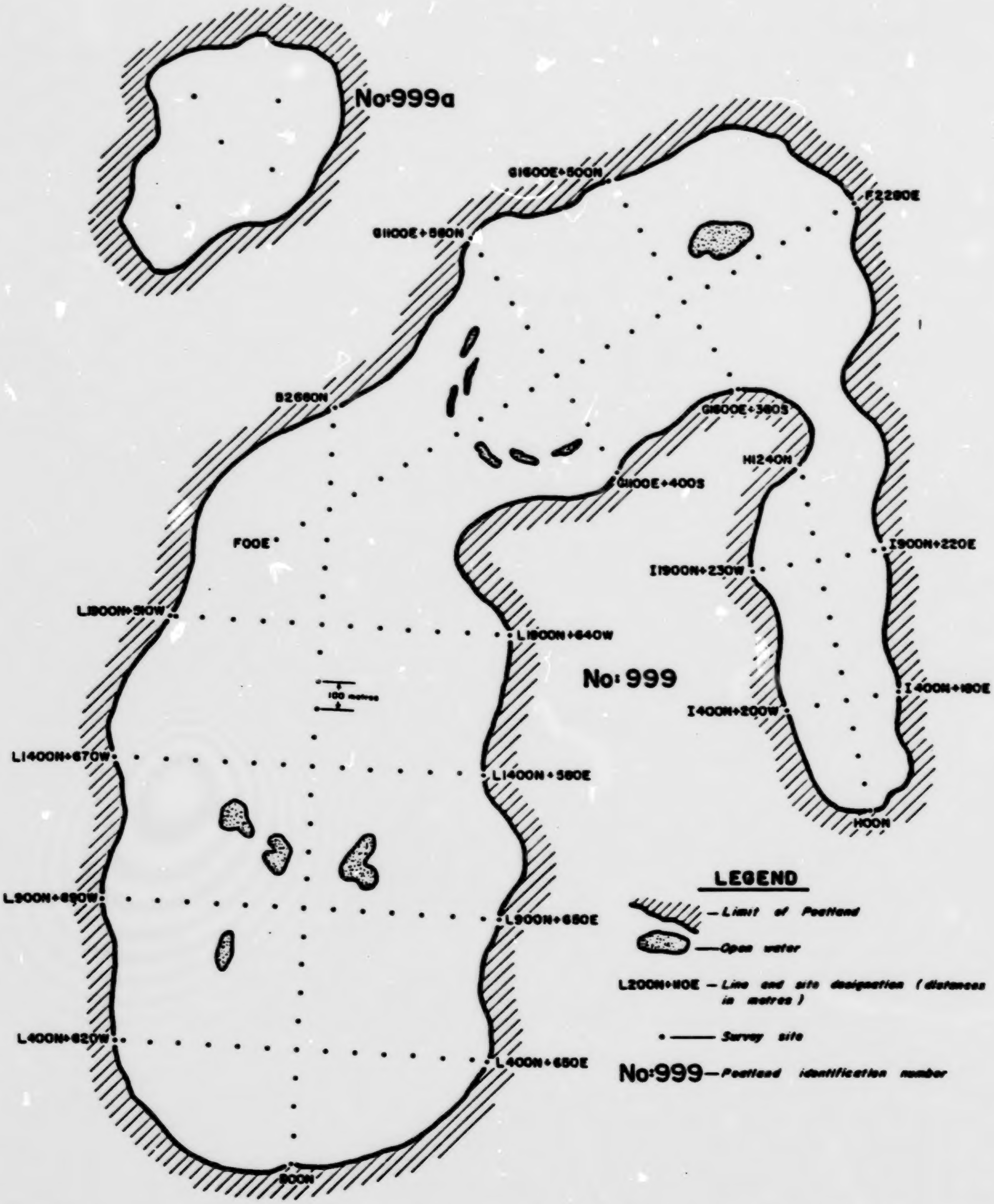

No:999a
G1600E+500N
F2280E
G1100E+580N
B2660N
G1600E+380S
H1240N
G1100E+400S
F00E
I1900N+220E
I1900N+230W
L1900N+510W
L1900N+640W
No: 999
100 metres
I400N+180E
I400N+200W
L1400N+670W
L1400N+580E
H00N
LEGEND
L900N+690W
— Limit of Peatland
L900N+650E
—Open water
L200N+110E — Line and site designation (distances in metres)
— Survey site
L400N+620W
L400N+650E
No:999—Peatland identification number
B00N

FIGURE 1. Typical survey pattern showing the Site Number of the last point of each grid line.

enabled one person to chain with good accuracy. They were particularly advantageous on open peatlands. Aerial photographs were used to locate positions of grid reference (tie-in) points on the ground. Line orientations were established using hand-held compasses. Pickets were placed at 100 m intervals along the grid lines. Most linecutting was carried out during the summer months in conjunction with the other phases of field work. However, the frozen surface of the peatlands in late fall gave improved walking conditions and linecutting was carried out during this time period when possible. When fall linecutting was conducted, pickets has to be solidly implanted, i.e., at least 50 cm deep, to ensure they did not float during the spring.

Each picket was numbered according to its distance (in metres) and direction (north, etc.) from the origin. The baseline was labelled as B, e.g., B900N, and sidelines (usually perpendicular to the baseline) were labelled as L, e.g., L900N+200E. On peatlands with more than one grid system (Figure 1), subsequent line pairs were labelled F and G, H and I, etc. to facilitate computer data handling. Traverse points were given a T designation.

Grid lines ideally were cut until the margin of the peatland (i.e., mineral soil) was intersected. In practice, lines were terminated if peat depth was less than 1 m and dense cover was encountered, or if an extensive area of shallow (i.e., less than 1 m) peat occurred. Since these situations were difficult to predict from aerial photographs, the linecutters probed for the depth of peat and exercised their judgment. In some instances, traverse points were used to continue lines that were terminated due to dense cover.

LEVELLING

The elevation of each grid site was determined using self-compensating levels. Levelling rods with a bold "E" pattern (height of the "E" is 5 cm) gave the required accuracy and had good visibility in the high temperatures (i.e., heat waves) often encountered on the peatlands. Base stakes were driven at the intersection of grid lines and at the end of each line. These were used as control points when closing loops, etc. The elevation of major lakes, drainage channels, etc. were also determined.

The site elevations were tied (i.e., referenced) to survey monuments when poor drainage, such as the base of the deposit being below sea level, was anticipated. When the grid was not tied to a survey monument, the elevation of a reference site was estimated from contours on topographic maps (normally Land Registration and Information Service orthophoto maps) and at other sites the elevation was determined relative to the reference point. The elevation of traverse points was not determined.

DRILLING

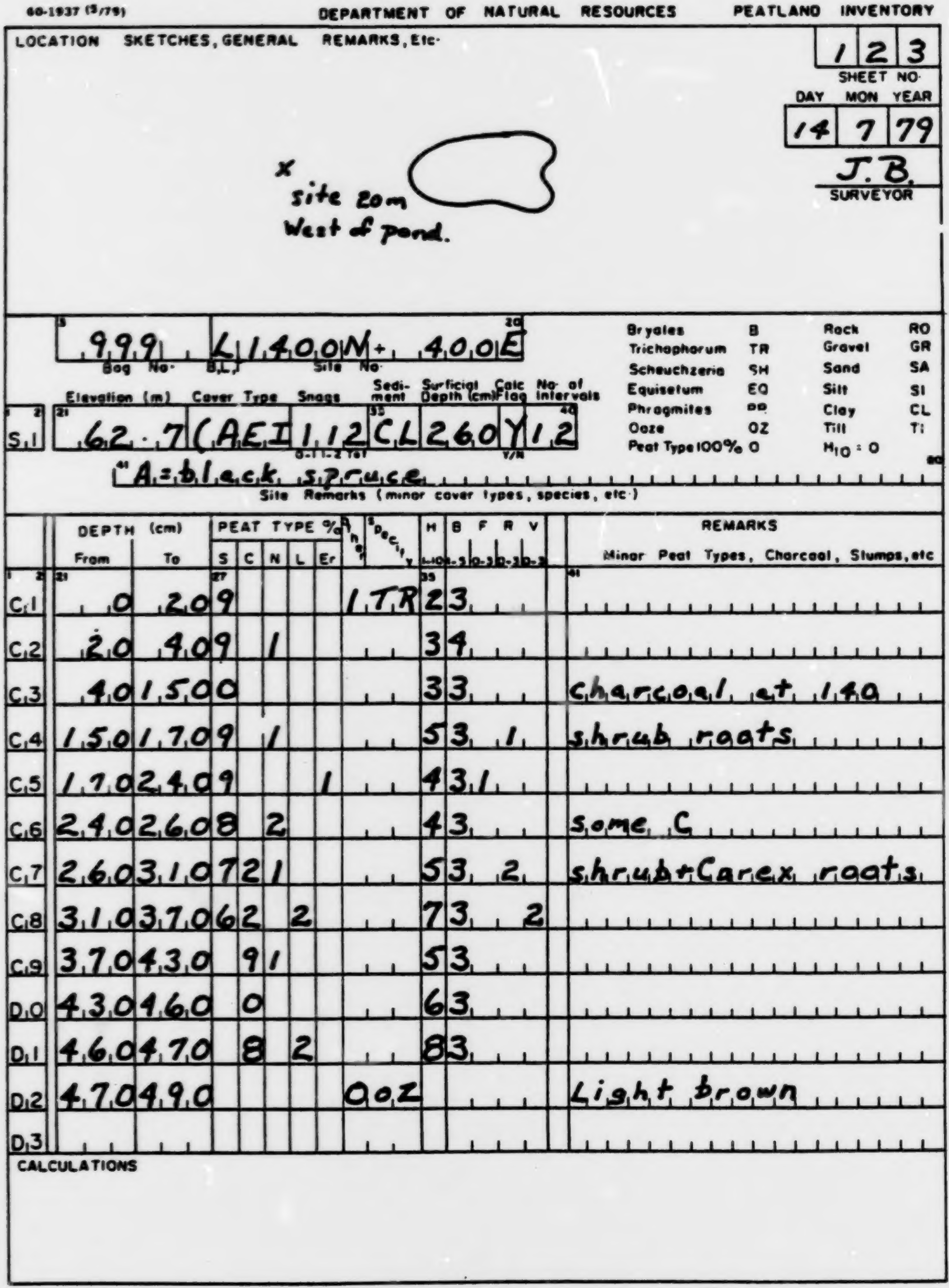
At each site a Hiller auger was used to retrieve a top-to-bottom core in 50 cm increments. A standard data page (Figure 2) was completed for each site. Each line on the data sheet represents one 80-column card for computer input. Bog No. and Site No. comprise columns 3 to 20 and are common to all cards. The data page is divided into two parts: (1) the site card (S1) includes the elevation, cover type, no. of snags, sediment type, surficial depth, calculation flag, and number of intervals; (2) the interval card (C1, etc.) includes the depth of the interval, the peat type, humification, wetness, fine and coarse fibres, wood remnants and remarks. One interval card was completed for each division made in the sample recovered. Each section of the data page is discussed in detail below.

Bog No.: This is the identification number mentioned previously. While this identification number should properly be termed "peatland number", the initial years of field work were primarily on bogs. Hence, the term "bog number" gained common usage and was retained.

Site No.: Figure 1 shows a typical grid layout and gives the site designation for the end site of each line. The numbering system for sites has been previously described under the section headed "Linecutting".

Cover Type: Cover type (surface vegetation) was recorded using the nine pure cover classes shown in Table 1 (Radforth 1952). Any combination of up to three letters constitutes a cover formula for that site. The method used in New Brunswick for determining the formula is a modification of that described by Radforth. The nine classes were divided into three groups on the basis of height and growth habit: (1) tree cover (A and B); (2) intermediate layer (C to F); and (3) surface mat (G to I). The field investigator makes a visual estimate of the vegetation in the vicinity of the survey site and records one letter for each of the three groups (in order of decreasing height) if all groups are present. For example, an AEI formula could comprise a cover of tall spruce, low shrubs, and moss. The original system of Radforth did not include classes that constituted less than 25% of the total cover. In the New Brunswick system a class comprising 15-25% was recorded as a bracketed letter. For computerization purposes, a left hand bracket only was placed immediately in front of the class. Thus, the example shown in Figure 2 describes a cover of 15-25% class A and over 25% of both E and I. The inclusion of cover classes of less than 25% is particularly significant in the case of A and B since these can be a deterrent to peat mining.

If each of the three groups of cover classes are not present only one or two letters need to be recorded. For example, an EI cover type could consist of shrubs and mosses in



60-1937 (5/79) DEPARTMENT OF NATURAL RESOURCES PEATLAND INVENTORY

LOCATION SKETCHES, GENERAL REMARKS, Etc.

x
site 20m
West of pond.

SHEET NO. 1 2 3

DAY	MON	YEAR
14	7	79

SURVEYOR: J.B.

Bog No.: 999
Site No.: B.L. L 1400N + 400E

	Elevation (m)	Cover Type	Snags (0-1 1-2 Tot)	Sediment	Surficial Depth (cm)	Calc Flag (Y/N)	No. of intervals
S1	62.7	CAEI	1 1 2	CL	260	Y	12

Site Remarks (minor cover types, species, etc.): A=black spruce

Bryales	B	Rock	RO
Trichophorum	TR	Gravel	GR
Scheuchzeria	SH	Sand	SA
Equisetum	EQ	Silt	SI
Phragmites	PP	Clay	CL
Ooze	OZ	Till	TI
Peat Type 100%	0	H_{10} = 0	

	DEPTH (cm) From	DEPTH (cm) To	PEAT TYPE % S	C	N	L	Er	Other	Specify	H 1-10	B 1-5	F 0-3	R 0-3	V 0-3		REMARKS Minor Peat Types, Charcoal, Stumps, etc
C1	0	20	9					1	TR	2	3					
C2	20	40	9		1					3	4					
C3	40	150	0							3	3					charcoal at 140
C4	150	170	9		1					5	3		1			shrub roots
C5	170	240	9				1			4	3	1				
C6	240	260	8		2					4	3					some C
C7	260	310	7	2	1					5	3		2			shrub+Carex roots
C8	310	370	6	2		2				7	3			2		
C9	370	430		9	1					5	3					
D0	430	460		0						6	3					
D1	460	470		8		2				8	3					
D2	470	490						0	OZ							Light brown
D3																

CALCULATIONS

FIGURE 2. Field data form with typical information (actual size is 8 1/2" x 11").

TABLE 1.
THE PROPERTIES OF THE NINE PURE COVERAGE TYPES OF THE RADFORTH COVER CLASSIFICATION
(after Radforth 1952)

Coverage Type	Woodiness vs. Non-woodiness	Stature (approx. height)	Texture (where required)	Growth Habit	Example
A	woody	over 4.5 m		tree form	spruce, larch
B	woody	1.5-5.0 m		young or dwarfed tree or bush	spruce, larch, willow, birch
C	non-woody	0.5-1.5 m		tall grass-like	grasses
D	woody	0.5-1.5 m		tall shrub or very dwarfed tree	willow, birch, Labrador tea
E	woody	up to 0.5 m		low shrub	blueberry, laurel
F	non-woody	up to 0.5 m		mats, clumps, or patches, sometimes touching	sedges, grasses
G	non-woody	up to 0.5 m		single or loose association	orchid, pitcher plant
H	non-woody	up to 10 cm	leathery	mostly continuous mats	lichens
I	non-woody	up to 10 cm	soft or velvety	often continuous mats, sometimes in hummocks	mosses

amounts of greater than 25%. However, if a group is absent and one of the remaining groups has two classes exceeding 25%, three letters can be used to describe the formula. For example, an EFI cover type has all three classes present in amounts greater than 25% with a greater amount of F than E. Cover classes present in minor amounts can be noted in the remarks.

The Radforth cover classes do not identify species, peatland type or trophy level. However, in New Brunswick the number of species comprising a particular class was relatively low. Anomalous situations were recorded in the remarks. For example, cover class A was normally spruce or tamarack so the presence of pine was noted in the remarks. Species that are good indicators of the trophy level of the peatland were also noted.

Snags: The term snags refers to stumps and wood remnants contained in the peat layer. A steel probe was inserted into the peat layer to a depth of 2 m. If the probe intersected a stump (i.e., was snagged) and could not penetrate the peat layer, then a snag was recorded for that probe location and a new location probed. Normally ten probes (including two auger holes) were made at each survey site (Figure 3). Thus, total snags at a site is a function of ten probes. Total snags is subdivided into those between 0 and 1 m depth and 1 and 2 m depth. The example given in Figure 2 indicates one snag in each layer, so that two of the ten probes were "hits". According to procedures outlined in Keskitalo (1982), the number of snags intersected is used to estimate the volume of wood in a peatland (Henderson and Keys 1985). As well, the number of intersections can be used to make relative comparisons between peatlands.

Sediment: The nature of the sediment underlying the peat layer was recorded using the letter codes shown in Figure 2. The augers used in the field survey did not penetrate well into the sediment. Thus, identification was often made on a small amount of sample.

Surficial Depth: A poorly decomposed peat, composed primarily of *Sphagnum*, is considered a top quality horticultural peat. The term surficial depth refers to the thickness of the upper strata of a peat deposit (i.e., surficial layer) with humification of H1 to H4. While the surficial depth often corresponds to the thickness of horticultural grade peat, the botanical composition must also be suitable.

The surficial depth was recorded at the conclusion of the drilling at each site. The boundary between the surficial layer and humified layer was determined by examining the humification of each interval and the depth was recorded. In some areas, thin layers of well-humified peat, such as the C4 interval in Figure 2, were included in the surficial layer.

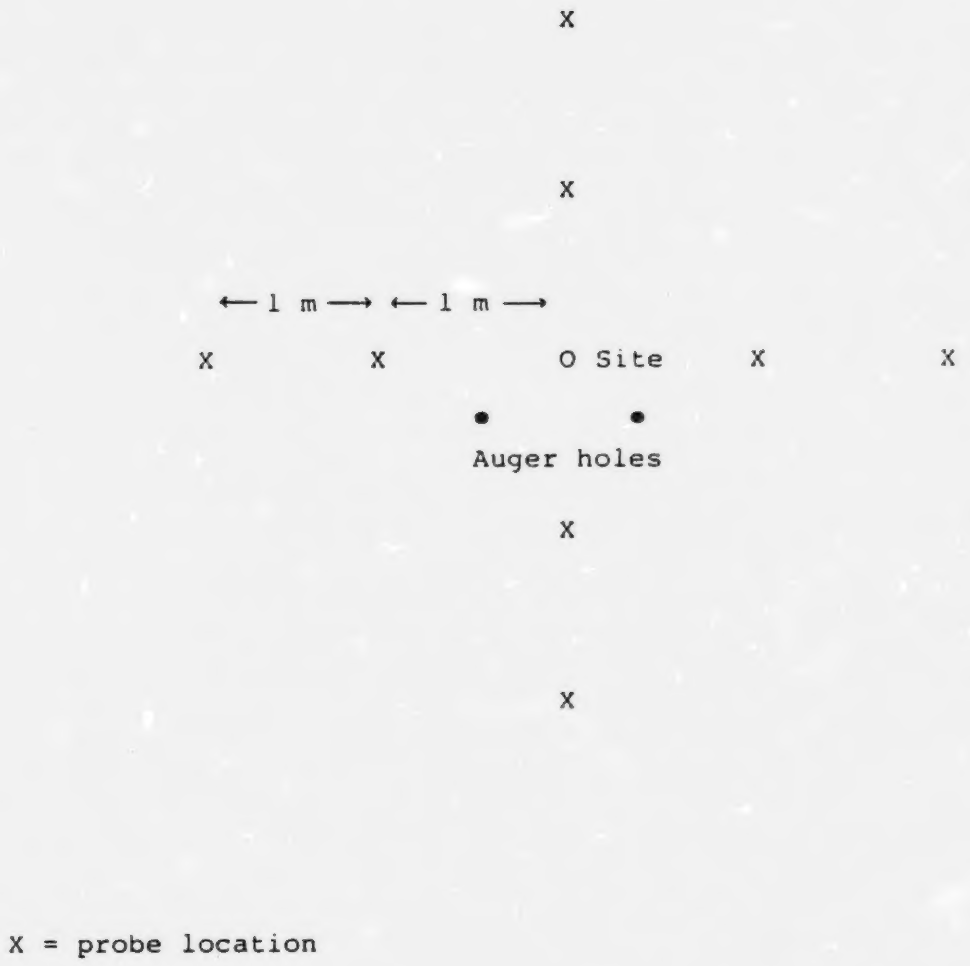

X
X
←1 m→ ←1 m→
X X O Site X X
Auger holes
X
X
X = probe location

Figure 3. Typical snag probing pattern.

Calculation Flag: Occasionally a depth probe was made at a site but a description of the peat was not. Since the computer would treat the missing values as zero, it was not desirable to include such a site in the detailed calculations. Thus, an "N" under calculation flag excluded the site from calculations.

No. of Intervals: The sample recovered by the Hiller auger was divided (normally to the nearest 10 cm) on the basis of changes in colour, texture (visual and tactile), and botanical composition so that each interval had only peat type and humification degree. One line on the lower part of the field sheet was used for each interval. The number of intervals was recorded on the S1 card and used as an internal check during input of data on the computer.

Depth: The surface of the peatland at each site was considered zero depth. The thickness of each interval was recorded in centimetres. However, the intervals were normally divided to the nearest 10 cm.

Peat Type: Each interval was examined to determine the botanical composition. The composition was estimated to the nearest 10% and recorded. For convenience, 100% was recorded as zero, 90% as nine, 80% as eight, etc.

The most common peat types form the first columns; the percentages of S (Sphagnum), C (Carex), N (shrubs), L (wood), and ER (Eriophorum) were recorded in the appropriate columns. When the botanical composition included additional constituents, the percentage was recorded under "Other". If "Other" was composed of only one species it was identified under "Specify" according to the codes given on the top right of the data page. If "Other" was composed of more than one species the code MS (miscellaneous) was recorded and the species identified in the remarks. Botanical constituents present in minor (less than 10%) amounts were also noted in the remarks.

The term "ooze" is used to describe subaqueous humus and included dy, gyttja, muck, sapropel, and sedimentary peat as defined by Stanek (1977). The material is commonly amorphous and can occur as a gel. Colour ranges from light green to light brown to grey to black. The inorganic content varies considerably depending on the environment of deposition. Ooze is normally found in the basal layer of the deposit although it occasionally occurs higher in the sequence in peatlands associated with streams.

In poorly decomposed peats, plant remains could be identified with relative ease by a person having a basic knowledge of the species involved. As the degree of humification increased, individual structures were less recognizable. Identification was often made on the basis of characteristics such as texture, colour, small plant fragments or rootlets, and general stratigraphy. Comparison of plant fragments to living plants on the peatland surface was useful.

Table 2 (from Henderson and Doiron 1982) lists some typical botanical constituents. The characteristics of each constituent are described for poorly humified (H1-H3) and well-humified (H7-H10) peats. Peats of medium decomposition (H4-H6) have characteristics common to both. A sample composed of more than one species will include characteristics of the various constituents.

The basic characteristics of the various species in a living state are described in several publications. The intent of the table is not to reproduce such information, but rather to concentrate on techniques of differentiation between similar species.

An ability to recognize the various constituents is a prerequisite for estimation of percentage. In the New Brunswick inventory, estimation was made to the nearest 10%. Species present in minor amounts were noted in the remarks. Each peat sample was first examined to determine which of the three dominant peat groups formed the major portion. Thus, a sample was either Sphagnum-dominated, sedge-(Carex) dominated, or Bryales-dominated. The minor constitutents were then identified and the percentages estimated. Some individuals found estimation of amounts easier if the amount of minor peat types, such as shrubs, was determined before assigning a value to the dominant species.

In generalized descriptions, the various peat types can be combined into 3 main groups based on the dominance of Sphagnum (S), sedge (C), or Bryales (B). The dominant peat types are given last when identifying a peat sample, with minor constituents treated as a prefix. Thus, a shrubby-sedge-sphagnum (NCS) is predominantly composed of Sphagnum with lesser amounts of shrubs and Carex. A woody sedge peat (LC) is predominantly Carex with wood.

Humification (H): The state of decomposition or degree of humification was recorded according to the von Post scale. The ten degrees of the scale are described in other publications (Korpijaakko and Pheeney 1977; Korpijaakko and Woolnough 1977). Table 3 (from Henderson and Doiron 1982) outlines criteria used to differentiate between degrees of humification. The degree determined for each interval was recorded on the field form, on which humification 10 (H10) is indicated by zero.

The state of decomposition of peat can be determined by numerous field and laboratory methods (International Peat Society 1976). The von Post scale of humification has wide international acceptance as a field method and is recommended over other systems used in Canada (Stanek and Silc 1977). This

TABLE 2.
CHARACTERISTICS OF COMMON BOTANICAL CONSTITUENTS OF PEAT
(from Henderson and Doiron 1982)

CONSTITUENT	CHARACTERISTICS	
	H1-H3	H7-H10 (mostly amorphous)
Sphagnum (S)	Entire stems, branches and leaves	Dark to very dark brown, soapy, sticky, leaves hands "dirty"
Brown mosses e.g. *Bryales* (B)	Entire stems, with leaves 2-3 mm long - bright gold (*Bryales*)	Are often resistant to decomposition and are commonly found as unhumified lenses in basal humified layers
Lichen	Entire, broken pieces, or grey-black slime. Rarely identifiable at depths over 10 cm	Rarely, if ever identified
Sedges		
- *Carex* spp. (C)	Entire or broken leaf blades - thin, yellow/ bronze with midrib. Roots - very thin (0.2-0.5 mm diameter), white to light yellow, wavy or kinky	Tan to light brown, not soapy will break up into "chunks" - not sticky, leaves hands "clean". Common to find roots
- *Eriophorum* spp. (Er)	Strands of very fine (0.1 mm) straight fibres, often clotted together like locks of hair	Individual or clotted fibres. Not frequent.
- *Trichophorum caespitosum* (Tr) (*Scirpus*)	White roots, 5-30 cm long, 1-2 mm wide, flattened, with alternate rootlets spaced 1-5 cm along root	Rare
Grasses	Entire or broken leaves	Difficult to distinguish from *Carex* spp.
Scheuchzeria (Sh)	Leaf blades bronze, shiny, hollow (often flattened), 4-8 mm wide, broken at a circumferential ridge. Occasionally coarse straight roots.	Difficult to distinguish from *Carex* spp.
Equisetum (Eq)	Black pieces of stem 0.5-1 cm wide with slight to definite longitudinal ridges, often broken at the node with the typical notched leaf sheath	Same as in less humified peats
Fern	Black pieces of root, 1-2 mm wide, 2-4 cm long, wavy, often bunched	Same as in less humified peats
Shrubs (N)	Pieces of stems or branches, 0.5-5 cm long, 0.2-0.5 cm wide. Leaves (often of *Chamaedaphne calyculata*).	Soft pieces of stems or branches
Shrub roots (N)	Red to yellow red, very fine to coarse, wavy, sometimes matted. The colour is often the only difference between shrub and sedge roots.	Rare
Wood (L)	Irregular pieces or chips	Pieces or chips up to H7. A pronounced soapy or slimy texture indicates presence of completely decomposed wood.
Seeds	Most common - *Carex, Menyanthes, Nuphar, Potamogeton*	Same
Other minor constituents	Spruce or pine needles or cones, charcoal pieces, insect parts, etc.	Same

TABLE 3.
CHARACTERISTICS OF THE TEN DEGREES OF HUMIFICATION IN THE VON POST SCALE
(from Henderson and Doiron 1982)

Degree of Humification	Initial Water	Texture	Plant Remains	Squeeze Test	Remarks
H1	clear	rough	living plants	very spongy	living layer
H2	clear to slightly yellow	rough	entire structure	spongy - will spring back after pressure. Holds no shape	
H3	yellow, slightly turbid	rough	breaking into pieces, but pieces are intact	slightly spongy holds a fairly definite form of handprint	
H4	light brown, turbid	very slightly soapy	pieces breaking up into individual components, *e.g.* leaves, stems, etc.	not spongy - forms a distinct replica of handprint - no peat escapes fingers	"brass knuckles" (H3 is rounded, whereas H4 is sharp)
H5	brown - mixture of plant debris, amorphous material and water	slightly soapy	individual components disintegrating such that some amorphous material is present	a very small amount of peat escapes the fingers	
H6	dark brown solution	soapy	plant structures evident on close examination - nearly half of sample in an amorphous state	one third of sample escapes fingers	
H7	very small amount - very dark brown	somewhat pasty	vague structures	over half of material escapes the hand as a paste	
H8	little or none	pasty	only roots or fibres are distinguishable - homogeneous	over two-thirds escapes the hand	
H9	none	pudding-like	extremely few remains	almost all escapes the hand	
H10	none		no distinguishable remains	all escapes the hand	rare

Initial water - Performed by gently squeezing the sample and catching the water in a cupped hand (step 3 in procedure). This test is limited, in that botanical composition can strongly affect water colour, *e.g.* a small amount of charcoal can turn the water dark. H9 and H10 peats have no free water, not even a glistening between the fingers.

Texture - Performed by visual and tactile (running fingers along core) examination. This test is used primarily as an indicator of where a core sample should be divided.

Plant remains - Performed by visual examination of the sample (step 4 in procedure). The amount of distinguishable plant structure is used in conjunction with the squeeze test for the final determination of degree of decomposition.

Squeeze test - This is the most subjective test of the von Post method, and strict adherence to the following guidelines is required for consistent results:

- Before performing the final squeeze, all the water must be released, otherwise a higher humification value will result. This is done by gently squeezing and turning the sample in the hand until water stops dripping. The final squeeze is performed by taking the sample in one hand, curling the fingers around the sample (such that as few openings as possible are created) and applying firm, even pressure. The squeeze should be performed "soon" after the peat is sampled, because drying can result in a low humification value, whereas too much "kneading" of the sample will give a high humification value.

method is designed for field use in undrained peatlands. The determination of the degree of humification is more meaningful if done in conjunction with the identification of the botanical constituents.

The "squeeze test" to determine degree of humification (Table 3) is performed only after releasing free water by firmly pressing the sample between "cupped" hands. The results of the squeeze test should be considered in conjunction with the amounts of recognizable plant structure, amount of amorphous material, and the amount and colour of water released.

Certain materials, such as wood or Eriophorum fibres, are resistant to decomposition and are often minor constituents in highly humified peats. In such special cases, the amount of material remaining in the hand after squeezing (see column headed "Squeeze test" in Table 3) was given a greater weighting than the indications of the other tests.

As with most field classifications, there is a certain degree of individual subjectivity, but careful adherence to guidelines presented in Table 3 can enable consistent results between individuals. To minimize such problems, periodic "standardization" sessions were held to increase consistency among individuals.

Wetness (B): This is a relative estimate of the moisture of the interval. The scale ranges from 1 to 5 with 3 being normal. One is dry, while five is very wet. A high value for B often indicates poor sample recovery, i.e., the sample was mainly water.

Fine Fibre (F), Coarse Fibre (R), and Woody Remnants (V): All of these scales range from 0 (nil) to 3 (high). A value greater than zero should also be evident in the peat type. Fine fibre is typically "root hairs" from species such as Eriophorum (the species responsible would be identifiable under peat type). Coarse fibres are commonly rootlets from Carex or shrubs. The species would be identifiable under peat type and were often noted in the remarks also, as shown in interval C8 of Figure 2. Woody remnants would be reflected by wood (L) in the peat type. Because of the strong relationship of these factors to peat type, they received little emphasis during the data compilation phase.

Remarks: This section was used to record various parameters that did not readily fit any of the previous columns for each interval. Peat types that comprised less than 10% seeds, charcoal layers, etc. were recorded under remarks.

WILDLIFE

During the course of the inventory, it became evident that there was little information available on the use of the

Province's peatlands by various wildlife species. For this reason, all field crews recorded wildlife sightings during the 1979-81 field seasons. A separate data sheet was completed for each sighting that included, when possible, the species and number of individuals, sex, maturity, and habitat use. These data records were compiled and summarized at the conclusion of each field season, then turned over to the Fish and Wildlife Branch of the New Brunswick Department of Natural Resources for further assessment. The information compiled could not truly be classed as a wildlife survey. However, some trends were recognizable and should provide an indication of the approach required if a detailed study becomes necessary.

Wildlife usage showed a strong relationship to peatland types and, more specifically, vegetation type and amount of open water. In general, sightings of wildlife were low on open bog areas with little open water. Peatlands associated with lakes or streams coincided with a higher use by wildlife. Minerotrophic (i.e., surface vegetation obtaining nutrients from groundwater) fens and marshes support much more diverse vegetation populations, and wildlife sightings were higher in these areas.

SAMPLING FOR PHYSICAL AND CHEMICAL ANALYSIS

Using the data recorded on the field sheets, completed field maps and, if available, the profiles for each peatland, one or two representative sites on most major peatlands were selected for follow-up sampling. The sites were divided into two types: those with good fuel peat potential and those with low fuel potential. Both types were well distributed across the Province to ensure that various peatland types, as well as bedrock types and climatic zones, were represented in the samples.

The objective of the sampling program was to evaluate the physical and chemical properties of the peats to determine what variations existed in these properties, and what the influence would be on the suitability of the peat for various end uses. While the determination of the fuel value of the peat was a major consideration in the sampling, the levels of various metals and other parameters were determined on the same samples with relatively low additional cost. Thus, the aim of the program was the accumulation of data rather than the investigation of a specific problem. From the data, various trends and relationships were identified that warrant more detailed studies.

From 1977 to 1979, the samples were collected using a 4 cm inside-diameter piston sampler that recovers a sample up to 80 cm long. During 1980 and 1981, a 10 cm diameter Macauley sampler (also called Russian sampler) was used to recover 50 cm long samples. These and other samplers have been described by various authors (Lappalainen _et al_. 1978; Tolonen 1967; Day _et al_. 1979). Using the piston sampler, some difficulties were encountered with compaction of the sample, which was problematic in the determination of bulk density. The Macauley sampler minimized this problem. As well, it was somewhat faster to operate in peat that did not contain wood or matted sedge layers. A modified 10 cm piston sampler (Korpijaakko 1981) has been used in Finland for bulk density determinations with good results. However, the sampler recovers a sample only 20 cm long. In most instances, all of these samplers are unsuitable for sampling the surface layers of the peatland. While "stove-pipe" type samplers can be used for this layer, a long knife or brush hook was used in the New Brunswick program.

The collection and subdivision of samples at the selected site was performed in much the same manner as described previously in the section on "Drilling". Division into intervals was made on the basis of changes in peat type and botanical composition. The depth of each interval was recorded. When using the Macauley sampler, only one quarter-diameter sample was retained. The second quarter-diameter was used to classify the intervals. When using the piston sampler, this classification was achieved using a second core or by retrieving an additional sample with a Hiller auger. Each sample was sealed in plastic to avoid moisture loss during transportation to the laboratory. The bedrock type, cover vegetation, depth code (surface - intermediate - basal), and coastal/inland relationships were also noted for each sample. These parameters can be used as grouping parameters when interpreting trends in the results.

At sites with low potential for fuel peat, a single sample-core was recovered. Moisture content and, in the last three years of the program, bulk density were determined on each sample. The peat was analyzed for Na, K, Ca, Mg, Fe, Mn, Cu, Pb, Zn, Ni, and on selected samples, U, P, B, total C, total N, Cl, Si, V, and S. Results were reported on a dry peat basis (Dry peat type in Appendix 5 and on pp. 39-40).

For sites with higher potential for fuel peat, analysis of the peat ash was performed. In order to obtain sufficient sample quantity for this and the other determinations, two sample-cores were recovered at each site (Ash type in Appendix 5). Again, moisture content and, in later years, bulk density were determined on each sample. The two sample cores enabled replicate determinations of moisture content and bulk density to be made. One sample was then used for the determination of calorific value (gross and ash free), sulphur, volatiles, and on a limited number of selected samples, ash melting point, total carbon, total and available nitrogen and phosphorus, sulphate, chlorine, and ultimate analysis (C, H, N, and O). The second sample was used for determination of ash content and the ash was analyzed for Fe, Mn, Na, Ni, Pb, Zn, K, Cu, and for selected samples, Al, B, Ca, P, Mo, Mg, Si, Soluble Silicon and U.

In addition to their importance in evaluating peat characteristics, the analytical results are also useful in biogeochemical prospecting and the monitoring of the rate of deposition of airborne pollutants. Appendix 5 outlines the laboratory methods used in these analyses and indicates the mean and range of the results. Reference to other documents that have provided more detailed treatment of the results are also given in Appendix 5.

DATA COMPILATION

MAPS

Orthophoto maps at 1:10 000 scale were used to prepare base maps. The location of the grid network and survey sites was plotted on the base map. The extent (or limit) or the peatland was plotted based on interpretation of aerial photographs and the field data. The resulting base map is similar to Figure 1. In most cases, the plotting of peat isopach and elevation maps on copies of the base map was completed in the field on a daily basis. Each was contoured on 1 m intervals.

A depth of 1 m is generally considered the limit of economic mineability of peat. For this reason, special care was taken in the establishment of the 1 m contour on the peat isopach maps. Drilling crews often completed depth probes between survey points to accurately establish the location of the 1 m contour. While the isopach contours were based on total peat depth (excluding ooze), the depth of the surficial layer at each site was also noted on the map. As well, the weighted average of the degree of humification of each site was noted so that sites could be rapidly compared without referring to the field data.

Using the maps, the total area of the peatland and the area where peat depth exceeds 1 m were determined using a planimeter. The boundaries between Crown and private lands were also plotted and the areas of each on the peatlands measured. If the peatland was leased, the area of the lease, area in production, etc. were also determined.

These areas, as well as location information, survey statistics, and other factors were compiled for each peatland and combined with the field data sheets for computer input.

COMPUTER PROCESSING

The compiled data were input on the computer and was checked, both visually and by the computer, for errors that occurred during the transfer of data. The average humification (weighted by depth) for the surficial layer, humified layer and combined thickness of each site was then determined. This information plus the data recorded on the field sheets constitutes site-level data and can be retrieved as such in a standard format (Henderson and Keys 1985). The site-level data were combined with information on areas and locations, then numerous calculations were performed to obtain bog-level data. In total, 27 tables are available at the bog level.

The distinction between the surficial layer (H1 to H4) and the humified layer (H5 to H10) has previously been discussed (see Drilling Section). Most calculations were performed for each of these layers plus the combination of the two. Only sites having a depth of 1 m or more were included in the detailed calculations. It was found that in most cases the number of sites with depths less than a metre was not large enough to provide a reliable average for calculations. In instances where it was necessary to perform calculations for the entire peatland, such as the total volume, the calculation was performed using the area and sites with 1 m depth. The value obtained was totalled with a similar calculation for a portion of the peatland with depths less than 1 m. An average depth of 0.5 m was assumed for the portion less than 1 m in depth.

A computerized summary of detailed bog-level tables for each peatland is available and examples are given in Open File Report 83-11 (Henderson and Keys 1985). The summary is subdivided on the basis of the surficial, humified, and combined layers, and include the following tables:

Average depth and humification

Percentage and volume of 22 peat types

Percentage and volume of 3 dominant peat groups (Sphagnum, Sedge, and Bryales)

Average humification of 22 peat types

Percentage and volumes of layers where minor peat types (shrubs, wood, Eriophorum, etc.) exceed 10%

Percentage of snags

Percentage and volume of 10 degrees of humification

Bog-level output is the summary of a number of sites on a particular peatland. Similarly, regional-level output is a summary of a number of peatlands in a specified group. Tables similar to those listed above are available at the regional level. Tables 8 to 11 provide examples (or excerpts) of some of these tables. Complete examples of the regional-level tables are also given by Henderson and Keys (1985). In addition, the following tables are available at the regional level:

Table M1 - Location Data

Table N1 - Part One, Summary of Ownership and Lease Data, and Part Two, Status Totals

Table O1 - Survey Information and Totals

Table P1 - Summary of Areas, Volumes and Average Depths

For the convenience of the reader, Appendix 1 contains tables summarizing location, ownership and peat quantities for each investigated peatland. These tables, combined with the index maps contained in Back Pocket No. 1, are intended to provide the reader with sufficient information to identify peatlands of particular interest and hence request the more detailed information available. (See List of Associated Information, p. v).

More than 600 variables can be used in combination to group peatlands at the regional level. For example, if a peatland with an area larger than 200 ha containing a volume of more than 1000 000 m^3 of pure Sphagnum peat with humification less than H4 is required, the computer will provide a regional-level output of all peatlands meeting these criteria. Bog-level calculations and regional-level groupings of peatlands are normally carried out by departmental staff on a request basis.

Compilation, calculation, and statistical treatment of all analytical data was also done with the aid of the computer. As well, after 1979, the time-consuming process of drawing profiles (cross sections) along each grid line was carried out by the computer. Two profiles were produced for each line. One shows the distribution of degrees of humification while the second displays peat type distribution, cover types, bottom sediment and snags. The computer plotted the profiles in ink on drafting plastic and completed all lettering. The layers and lenses representing various peat types and humification degrees were completed manually since some interpretation was required. Symbols were then added using letratone.

During the interpretation of the profiles, some information was generalized. Very small lenses were included in larger units unless they were of specific significance. Units (e.g., alternating intervals of shrubby-Carex-Sphagnum and Carex-Sphagnum) were frequently merged, providing it did not alter the overall interpretation of the deposit. On the profiles drawn by the computer, i.e., all those on the G and J sheets and much of the I map sheet, small code letters indicating these minor units will appear in the background. These code letters will allow the reader to assess the degree of generalization and interpretation.

The computerized data handling system was developed specifically for the project. The software development included standard library packages where possible. The programs are in a modular format with numerous subroutines to facilitate modification. All data processing was carried out using the facilities of the University of New Brunswick computing centre.

A USER'S GUIDE TO THE COMPILED DATA

MAPS AND CROSS SECTIONS

Figure 4 shows the distribution of peatlands in the Province and provides the Plate Numbers (83-10A to 83-10F; note that the plate numbers correspond to the open file report number) of the six index maps contained in Back Pocket No. 1 of this report. These maps, combined with the tables contained in Appendix 1, should provide the reader with sufficient information to identify peatlands of interest and hence request the more detailed information available (see List of Associated Information, p. v). These index maps show the location of the 289 sets of 1:10 000 scale peatland maps, each of which consists of a base map and a peat isopach map. In addition, 160 map sets include elevation maps.

There are 79 map sets associated with the 21 B and G index (Plate 83-10A), 5 sets with the 21 H index (Plate 83-10B), 99 sets with the 21 I index (Plate 83-10C), 45 sets with the 21 J index (Plate 83-10D), 4 sets with the 21 O index (Plate 83-10E), and 57 sets with the 21 P index (Plate 83-10F). The reader will note the numbers on the 21 P index commence with P27 through to P83. The numbers 1 to 26 were used for maps and cross sections in Open File Report 77-4 (Korpijaakko 1977). Although these maps have been reformatted and incorporated into the standard format, the numbers were not used.

Each of the peatland maps was drafted using a standard legend and format. The standard map size is 60 cm by 85 cm (including 20 cm legend) and covers three minutes of latitude and five minutes of longitude. Paper copies of each of the maps, at 1:10 000 scale, are available on request.

The map sets have been photographed at a 29X reduction and are available as microfilm or microfiche. Paper prints can be made of the fiche. Since the printer operates at a 14.5X enlargement, the effective dimensions of these prints are one-half those of the original, i.e., the scale is 1:20 000. An example of a base, isopach and elevation map at this scale is included in Back Pocket No. 2 of this report.

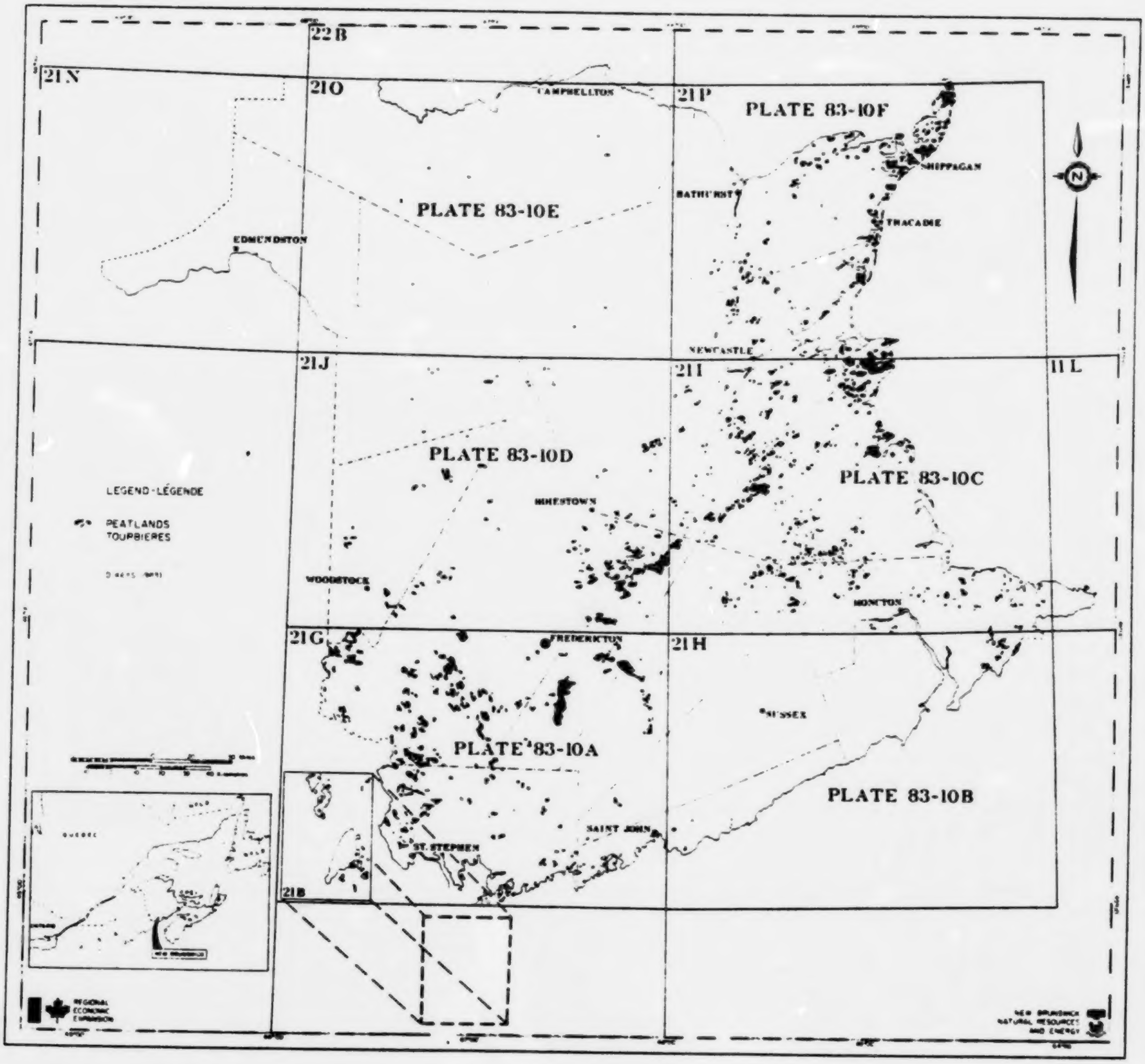

22B
21N
21O
CAMPBELLTON
21P
PLATE 83-10F
SHIPPAGAN
BATHURST
PLATE 83-10E
TRACADIE
EDMUNDSTON
NEWCASTLE
21J
21I
11L
PLATE 83-10D
PLATE 83-10C
LEGEND-LEGENDE
PEATLANDS
TOURBIERES
WOODSTOCK
MONCTON
21G
FREDERICTON
21H
SUSSEX
PLATE 83-10A
PLATE 83-10B
SAINT JOHN
ST. STEPHEN
21B
QUEBEC
REGIONAL ECONOMIC EXPANSION
NEW BRUNSWICK NATURAL RESOURCES AND ENERGY

FIGURE 4. Distribution of peatlands in New Brunswick showing plate numbers for the 1:250 000 scale index maps.

On the isopach map three numbers appear at each site with the following information in the legend:

Average degree of humification
Degré moyen de décomposition
2.3
Survey site
Station d'inventaire
o
Depth of surficial layers (decimetres)
Profondeur des couches superficielles (décimètres)
12/3.4
Total depth (metres)
Profondeur totale (mètres)

The average degree of humification is weighted according to the thickness of the various intervals intersected at the site (the calculation procedure is detailed in the explanation of Table I-3 of Henderson and Keys 1985). The depth of surficial layers is the surficial depth discussed previously in the Drilling Section. In general, the poorly decomposed peats of the surficial layer would be suitable for extraction as horticultural peat, but the reader is cautioned that the botanical composition of the peat and other factors should also be evaluated. The total depth refers to the total depth of peat at the site but does not include the depth of ooze, marl or other sediment that immediately underlies the peat. The contours on the isopach are based on total depth. Aerial photograph interpretation was used as an aid in contour placement. Since many of the calculations are based on a one metre peat depth, particular care was taken in the placement of the one metre contour. Depth probes along the grid lines were often used to determine the location of the 1 m peat depth.

The isopach map also indicates the boundary between Crown and freehold peatland. In cases where all peatlands on the map are either entirely Crown or entirely freehold, a notation to this effect is made in the legend. The boundary of Crown peatlands held under a Peat Moss Lease has also been indicated on applicable peat isopach maps. The extent of areas prepared or in use for peat extraction has been indicated on the base, isopach and elevation maps.

On the elevation map, the elevation (in metres above sea level) of each site is recorded. Contours at one m intervals were drawn using the site elevations and aerial photograph interpretation.

Each map in the set has a table in the legend similar to that depicted below:

	Total	Profondeur > 1 m deep		
Tourbière Bog	Superficie Area (ha)	Superficie Area (ha)	Volume (000 000 m^3)	Volume H5-10 (000 000 m^3)
1	283	141	2.8	1.2
1a	57	-	-	-
3a	51	12	0.1	0.0

The first column gives the number of each peatland on the map set. The second column gives the total area of the peatland in hectares. The remaining columns all refer to the portion of the peatland where peat depths exceed 1 m. Column three gives the area in hectares of the portion with peat depths of 1 metre or greater. Column four gives the total volume of peat within this area in million cubic metres. Column five gives the portion of this volume that is H5 to H10, i.e., the volume of the humified layer. In the example shown, Bog No. 1A was found to have a total area of 57 ha. However, peat depth did not exceed 1 m at any investigated site, so the remaining columns are blank.

For each of the 214 peatlands with elevation data, profiles (cross sections) are available at a scale of 1:4 000 with an 80X vertical exaggeration. One profile illustrates the distribution of peat types while a second displays degrees of humification. There are 1137 lines representing 1484 km of grid lines shown in this manner. These have been microfilmed at a 36X reduction. The effective scale of a paper print of the microfiche is 40% of the original, i.e., 1:10 000. An example of the profiles at this scale is contained in Back Pocket No. 2 of this report. The reader will note that the peat type profile is displayed directly below the humification profile. Several profiles for a particular deposit are displayed on the same sheet when possible. A total of 458 sheets of profiles are available. Appendix 3 gives a listing of Peatland Map No., Bog No., and the number of associated profile sheets and lines. To minimize drafting costs, the symbols legend for profiles has not been reproduced on each sheet. Instead, a standard legend has been prepared and is shown in Figure 5.

SUMMARY DESCRIPTIONS OF INDIVIDUAL PEATLANDS

Summary Descriptions of each of the 817 peatlands investigated are available on request from the Mineral Resources Division. Since this data bank totals over 3500 pages, it does

MAJOR PEAT TYPES

~	*Sphagnum*	S
▥	*Sedge (dominating)*	C
~	*Bryales*	B

MINOR PEAT TYPES

N	*Shrubs*	N
∧	*Wood*	L
}	*Eriophorum*	Er
▥	*Sedge (non-dominating)*	C
↙	*Scheuchzeria*	Sh
¬	*Equisetum*	Eq
ξ	*Phragmites*	Pr
Tr	*Trichophorum (Scirpus)*	Tr

NOTE : Symbols of Minor Peat Types are used in combination with Major Peat Types as per examples below

▥	*Wood - Sedge - Sphagnum*	LCS
▥	*Shrubby - Sedge*	NC

OTHER

▩	*Detritus - Ooze*	Oz

HUMIFICATION (von Post)

⁘	*H1 to H3*
▨	*H4*
▧	*H5 to H10*

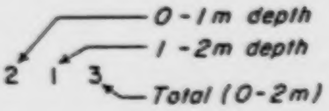
COVER TYPES (over 25% of total)

A	*Tall trees (>4.5m)*
B	*Low trees (1.5 - 4.5m)*
C	*Grasses (0.5 - 1.5m)*
D	*Tall shrubs (0.5 - 1.5m)*
E	*Low shrubs (<0.5m)*
F	*Sedges, grasses (<0.5m)*
G	*Herbs*
H	*Lichens*
I	*Moss*
P	*Prepared for use*
( )	*15 to 25 % of total cover*

BOTTOM SEDIMENT

RO	*Rock*
GR	*Gravel*
SA	*Sand*
SI	*Silt*
CL	*Clay*
TI	*Till*

SNAGS (number of stumps hit in 10 probes)



— — *Reference line*

↗ *Analysis site (dry, ash)*

FIGURE 5. Legend to symbols used on profiles.

not accompany this report. It is suggested that the reader use Appendix 1 of this document together with the index maps in Back Pocket No. 1 to select the individual deposits of particular interest. The summary descriptions and maps for these can then be requested. Tables M1, N1 and P1 of Appendix I contains a brief numeric summary of the peatlands to assist in this selection.

Each summary description consists of two pages of numeric data supplemented by one or more pages of written description and interpretation. Tables displaying physical and chemical data are included for deposits that were sampled. Figures 6 to 12 give examples of the various sections of a summary description. The segments of each table are discussed below.

Location and Ownership Table: Page one of the summary description (Figure 6) contains information on the location and ownership of the peatland.

Bog No.: is the peatland identification number mentioned earlier in the report.

Peatland Map No.: refers to the 1:10 000 scale maps indicated on the index maps in Back Pocket No. 1. The letter prefix indicates the 1:250 000 N.T.S. sheet on which the peatland is located, e.g., I8 indicates peatland map 8 on index map 21 I (since the entire Province of New Brunswick falls within N.T.S. area 21, the number has not been repeated).

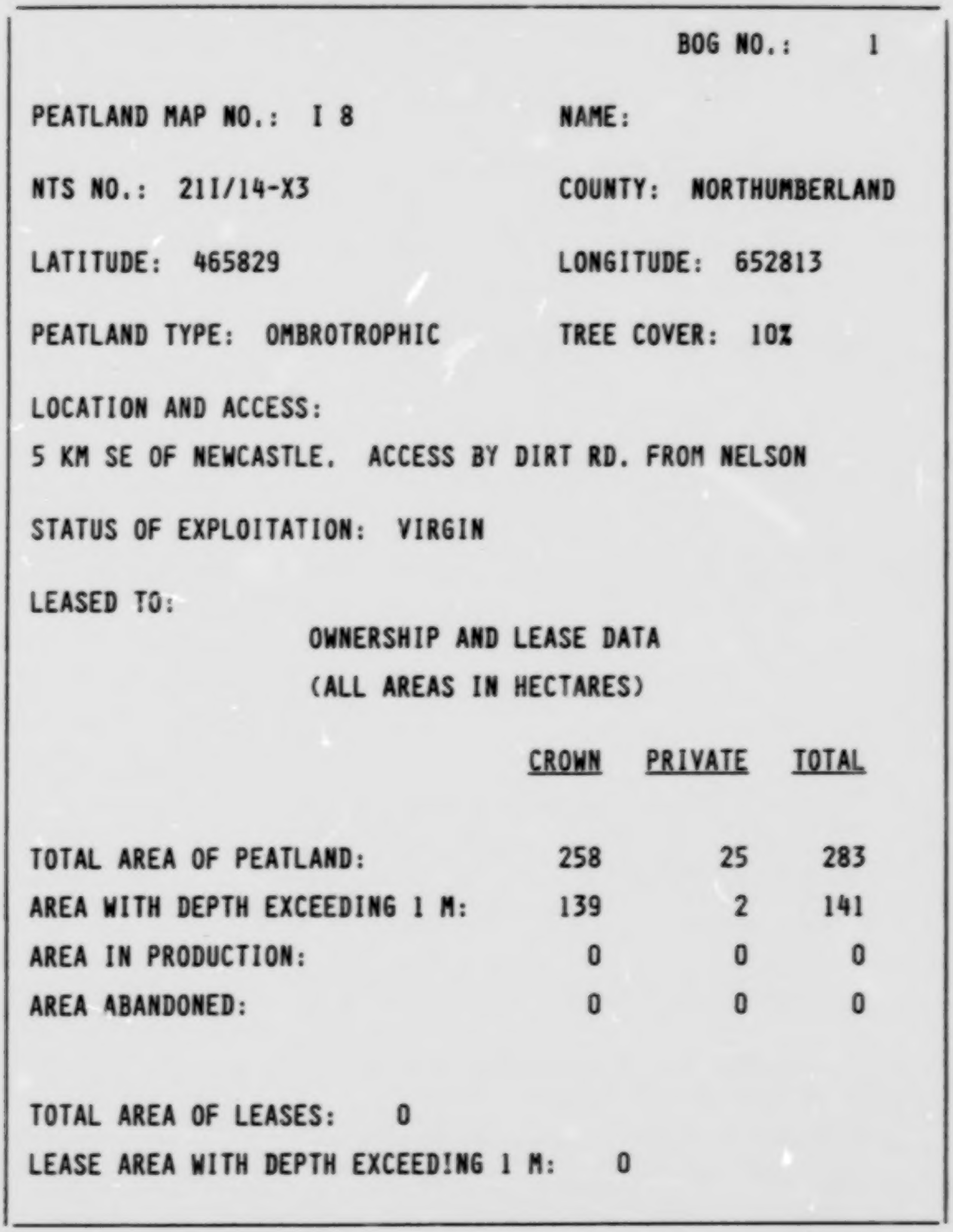
Name: Many peatlands are known locally by name. In addition, most previous studies have assigned names to the deposits investigated.

N.T.S. No.: The 1:50 000 scale N.T.S. number of the map sheet on which the deposit is located has been given. In the eastern part of the Province a further letter and number breakdown is given, e.g., X3. This refers to the 1:10 000 scale orthophoto maps (produced by Maritime Resource Management Services) that were used to obtain base map information. M.R.M.S. used a different indexing system in the western part of the Province.

County: indicates the county in which the peatland is located.

Latitude and Longitude: The numbers given are for the approximate centre of the peatland.

Peatland Type: Each peatland was classed as either ombrotrophic (i.e., surface vegetation obtaining nutrients from precipitation only) or minerotrophic (i.e., surface vegetation obtaining nutrients from groundwater). It is common for ombrotrophic peatlands to have some areas of minerotrophic vegetation, particularly on the margins. The extent of the minero-



BOG NO.: 1

PEATLAND MAP NO.: I 8

NAME:

NTS NO.: 21I/14-X3

COUNTY: NORTHUMBERLAND

LATITUDE: 465829

LONGITUDE: 652813

PEATLAND TYPE: OMBROTROPHIC

TREE COVER: 10%

LOCATION AND ACCESS:

5 KM SE OF NEWCASTLE. ACCESS BY DIRT RD. FROM NELSON

STATUS OF EXPLOITATION: VIRGIN

LEASED TO:

OWNERSHIP AND LEASE DATA

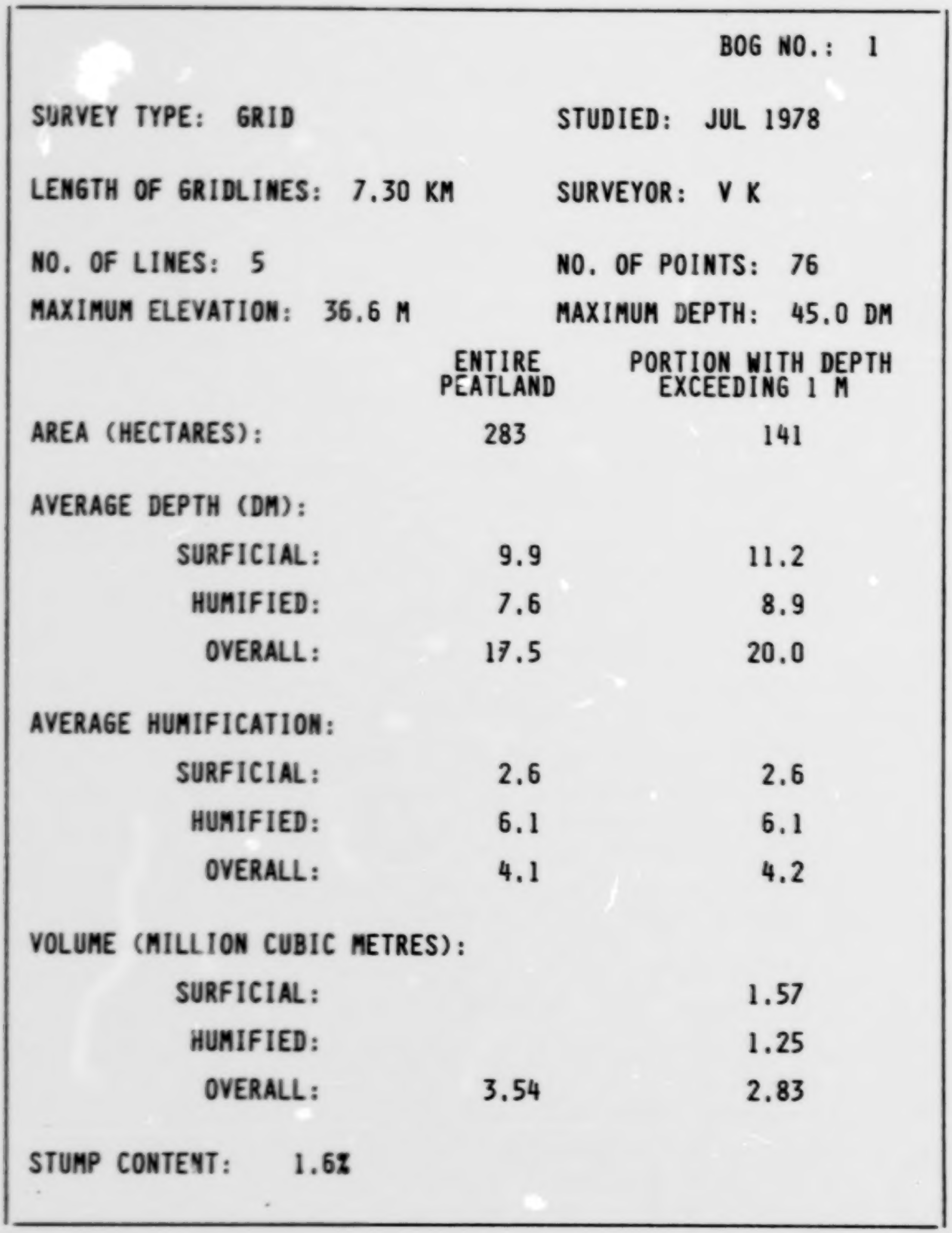
(ALL AREAS IN HECTARES)

	CROWN	PRIVATE	TOTAL
TOTAL AREA OF PEATLAND:	258	25	283
AREA WITH DEPTH EXCEEDING 1 M:	139	2	141
AREA IN PRODUCTION:	0	0	0
AREA ABANDONED:	0	0	0

TOTAL AREA OF LEASES: 0

LEASE AREA WITH DEPTH EXCEEDING 1 M: 0

FIGURE 6. An example of Page One of the Summary Description produced for each peatland.



```
                                                    BOG NO.:  1

SURVEY TYPE:  GRID                          STUDIED:  JUL 1978

LENGTH OF GRIDLINES:  7.30 KM               SURVEYOR:  V K

NO. OF LINES:  5                            NO. OF POINTS:  76

MAXIMUM ELEVATION:  36.6 M                  MAXIMUM DEPTH:  45.0 DM

                                  ENTIRE      PORTION WITH DEPTH
                                 PEATLAND       EXCEEDING 1 M

AREA (HECTARES):                   283              141

AVERAGE DEPTH (DM):

             SURFICIAL:            9.9             11.2
              HUMIFIED:            7.6              8.9
               OVERALL:           17.5             20.0

AVERAGE HUMIFICATION:

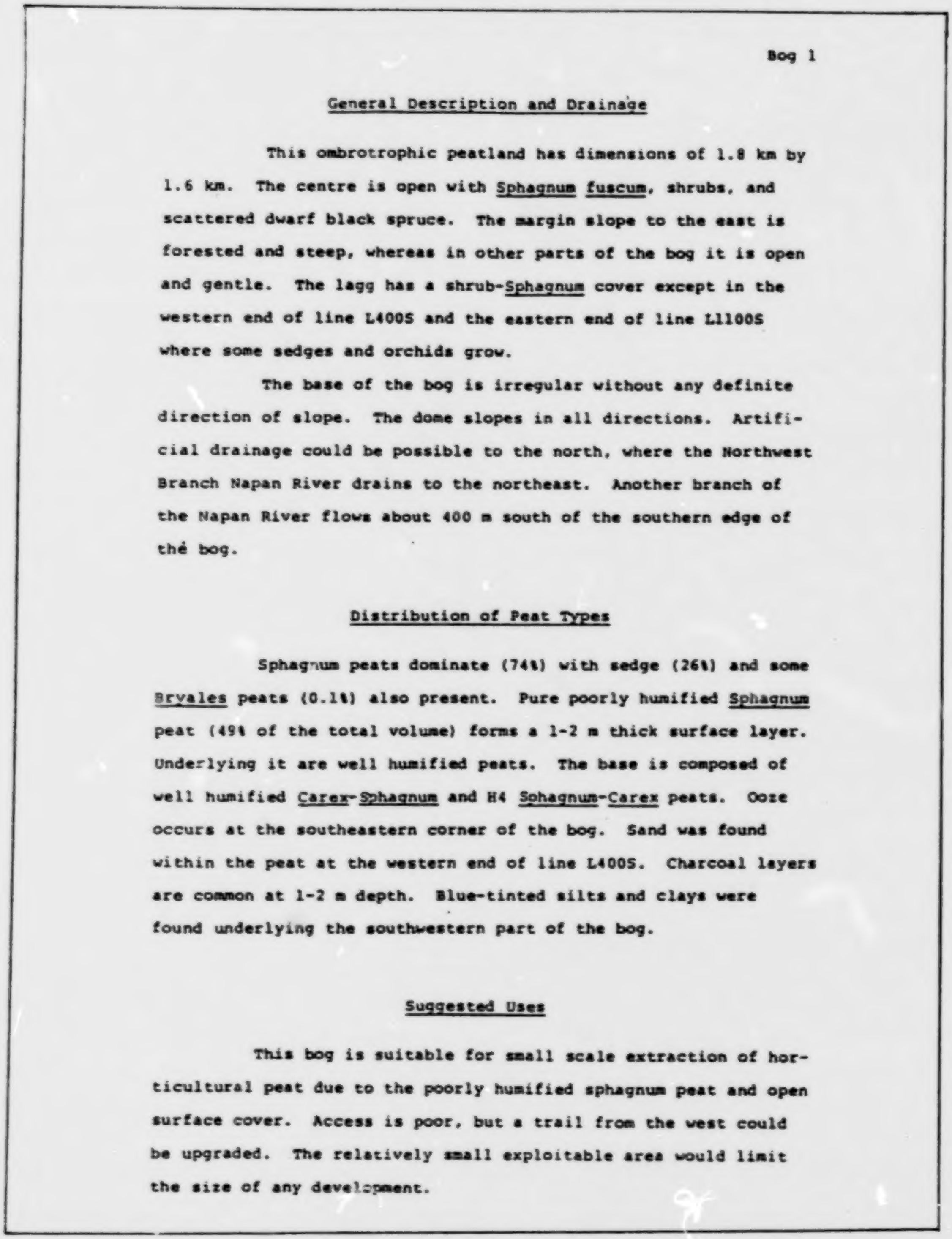
             SURFICIAL:            2.6              2.6
              HUMIFIED:            6.1              6.1
               OVERALL:            4.1              4.2

VOLUME (MILLION CUBIC METRES):

             SURFICIAL:                             1.57
              HUMIFIED:                             1.25
               OVERALL:           3.54              2.83

STUMP CONTENT:    1.6%
```

FIGURE 7. An example of Page Two of the Summary Description produced for each peatland.



Bog 1

General Description and Drainage

This ombrotrophic peatland has dimensions of 1.8 km by 1.6 km. The centre is open with *Sphagnum fuscum*, shrubs, and scattered dwarf black spruce. The margin slope to the east is forested and steep, whereas in other parts of the bog it is open and gentle. The lagg has a shrub-*Sphagnum* cover except in the western end of line L400S and the eastern end of line L1100S where some sedges and orchids grow.

The base of the bog is irregular without any definite direction of slope. The dome slopes in all directions. Artificial drainage could be possible to the north, where the Northwest Branch Napan River drains to the northeast. Another branch of the Napan River flows about 400 m south of the southern edge of the bog.

Distribution of Peat Types

Sphagnum peats dominate (74%) with sedge (26%) and some *Bryales* peats (0.1%) also present. Pure poorly humified *Sphagnum* peat (49% of the total volume) forms a 1-2 m thick surface layer. Underlying it are well humified peats. The base is composed of well humified *Carex*-*Sphagnum* and H4 *Sphagnum*-*Carex* peats. Ooze occurs at the southeastern corner of the bog. Sand was found within the peat at the western end of line L400S. Charcoal layers are common at 1-2 m depth. Blue-tinted silts and clays were found underlying the southwestern part of the bog.

Suggested Uses

This bog is suitable for small scale extraction of horticultural peat due to the poorly humified sphagnum peat and open surface cover. Access is poor, but a trail from the west could be upgraded. The relatively small exploitable area would limit the size of any development.

FIGURE 8. An example of the descriptive page(s) of the summary description of a grid-type peatland.

DRY PEAT SAMPLES BOG : 1 COVER TYPE : (D)EI SITE :B1100S+

DEPTH (CM)	SAMPLE NO	PEAT TYPE	H	M.C. (%)	BULK DENSITY (KG/M3)	PPM OF DRY PEAT							
						B	MN	V	NI	CU	PB	ZN	U
30	1	S	1	93.2	50		11		6	27	23	32	
50	2	S	2	94.3	31		10		9	[illegible]	9	23	
90	3	S	2	93.6	42		10		4	25	6	21	
130	4	S	3	92.9	61		6		27	24	8	16	
170	5	S	3	92.8	51		5		5	20	7	9	
210	6	S	4	93.2	57		16		14	16	4	14	
280	7	C S	5	90.2	77		33		5	20	7	12	
320	8	M C S	6	86.9	132		69		8	27	11	15	
350	9	S C S	6	88.4	116		66		8	21	7	12	
410	10	M C	4	89.5	104		97		4	6	5	14	< 0.4

FIGURE 9. An example of Page One of the results obtained at a site where dry-peat-type analyses were completed.

DRY PEAT SAMPLES BOG : 1 SITE :B110CS+

DEPTH (CM)	SAMPLE NO	PPM OF DRY PEAT					PERCENT OF DRY PEAT				PPM
		FE	CA	K	NA	MG	C	S	SI	P	CL
30	1	450	210	150	180	360					
50	2	450	250	180	150	420					
90	3	140	150	270	60	190					
130	4	390	160	200	90	460					
170	5	270	880	250	50	520					
210	6	380	1370	140	70	390					
280	7	810	2400	520	40	160					
320	8	2130	4680	280	30	180					
350	9	1790	3930	390	10	150					
410	10	2570	3780	100	60	190					

FIGURE 10. An example of Page Two of the results obtained at a site where dry-peat-type analyses were completed.

BOG NO : 27 COVER TYPE : (D)EI SITE : [illegible]

DEPTH (CM)	SAMPLE NO.	PEAT TYPE	H	M.C. (%)	BULK DENSITY (KG/M3)	HEAT OF COMBSTN CAL/GM	% OF DRY PEAT							PPM OF DRY PEAT			% OF ASH	
							S	VOLATILE %	%ASH	ASH MELT POINT	C	N	TOTAL P	CL	AVAIL. N	AVAIL. P	SO4	SIO2
30	1	TR S	1	91.2		4095	0.05	87.45	1.35		47	0.55	0.015	35	25	2.0		
50	3	TR S	2	94.5		4256	0.10	82.20	1.07		49	0.57	0.015	50	75	1.0		
80	5	TR S	1	92.7		4198	0.05	78.90	0.59		50	0.73	0.02	40				
130	7	H S	4	92.4		4756	0.11	75.75	0.73		51	0.87	0.015	35				
190	9	H S	5	92.8		4649	0.03	77.00	0.80		53	0.78	0.015	35				
260	11	S	5	93.8		4626	0.10	75.90	0.79		50	0.80	0.01	10				
310	13	H S	8	90.4		4998	0.04	71.50	4.46		56	1.20	0.02	10				
350	15	H C S	8	87.7		6079	0.16	76.70	6.57		57	1.70	0.03	< 5				
420	17	C	4	98.2		5037	0.07	78.05	10.42		52	1.86	0.055	10				

Figure 11. An example of Page One of the results obtained at a site where peat-ash-type analyses were completed.

PEAT ASH SAMPLES BOG : 27 SITE : L16CCN+ 200E

DEPTH (CM)	SAMPLE NO	PERCENT OF PEAT ASH											PPM OF PEAT ASH				PPM OF DRY
		SOLUBLE SI	FE	AL	CA	K	NA	MG	P	B	MO	MN	NI	CU	PB	ZN	U
30	1		3.59			6.28	1.38					1.14	122	120	605	1451	
~~50~~	~~3~~		~~2.67~~			~~2.05~~	~~1.49~~					~~0.28~~	~~85~~	~~128~~	~~918~~	~~1888~~	
90	5		4.20			2.11	2.20					0.14	122	167	333	2126	
130	7		3.61			1.28	1.38					0.06	74	124	111	874	
170	9		7.92			1.03	1.60					0.07	69	115	86	232	
250	11		16.11			0.90	1.38					0.10	96	100	86	251	
310	13		8.40			0.51	0.53					0.09	80	85	49	74	
350	15		5.73			0.51	0.32					0.06	112	154	62	63	
420	17		4.62			0.77	0.21					0.05	154	163	62	95	1.2

Figure 12. An example of Page Two of the results obtained at a site where peat-ash-type analyses were completed.

minerotrophic vegetation may, in a few cases, be larger than the ombrotrophic portion. The convention used in denoting the trophy level of a peatland was to indicate as ombrotrophic any peatland having ombrotrophic vegetation regardless of the total area it comprised. When anomalous situations were encountered, the General Description (Figure 8) would provide further details.

Tree Cover: indicates the portion of the surface of a deposit with tree cover. The percentage given is an estimate from aerial photographs. The density of cover may vary substantially in different parts of a peatland and is commonly discussed in the General Description (Figure 8).

Location and Access: The distance and direction from the nearest community are given. An indication of the method of reaching the deposit is provided. Since this information is stored on the computer, abbreviations are common.

Logging operations are commonplace in many part of the Province and new roads are constructed regularly. The reader is advised to consult recent maps or to contact regional forestry offices of the Department of Natural Resources for updated information concerning access roads.

The availability of electric power and similar services has not been considered in the compilation of this report.

Status of Exploitation: refers to the current utilization of the deposit. If status is other than "Virgin", the General Description will normally provide further details. The status of the peatland was accurate at the time of writing, but the reader is advised that this parameter may change for some deposits and that the current status should be checked.

Leased To: If there is a current Peat Moss Lease on Crown lands, the lease holder is identified.

Ownership and Lease Data: On the peat isopach map, the boundary between Crown and privately owned peatland has been identified. The area (in hectares) of each has been measured with a planimeter and recorded. These areas are further subdivided into the portion where peat depths exceed 1 m, i.e., inside the 1 m contour. For those peatlands under lease, the area prepared or in use for peat extraction and the portion abandoned have been measured. The portion of the lease actually on the peatland, as well as the portion on the peatland with more than 1 m depth are also provided.

Numeric Data Table: Page two of the summary description (Figure 7) includes survey information, areas, and calculated average depths, average humifications, volumes, and stump content.

Survey Type: indicates whether the peatland was studied using grid points, traverse points or a combination of the two. If Survey Type is "grid" or "combined" then the "Length of Gridlines" will be given (in km) and the "Number of Lines" will be denoted to indicate the number of profiles available.

Studied: gives the month and year the field investigations were carried out.

Surveyor: gives the initials of the principal investigator.

No. of Points: indicates the number of field investigation sites completed.

Maximum Elevation: gives the elevation (in metres above sea level) of the highest investigated site.

Maximum Depth: gives the thickness (in decimetres) at the deepest investigated site. The thickness includes intersections of ooze, marl, etc.

The remaining sections of Figure 7 deal with calculated or measured results of the investigations. All parameters are given for both the "entire peatland" (also referred to as "total area") and "the portion (or area) with depth exceeding 1 m". In addition, most parameters are subdivided into surficial, humified, and overall layers. These terms were mentioned previously in the "Surficial Depth" section of "Drilling". During the completion of the field form, the peat layer at each site was divided into a surficial layer (mainly H1 to H4) and a humified layer (mainly H5 to H10). All computations were carried out for each layer and then combined.

Area: was measured from the peat isopach map using a planimeter.

Average Depth: was calculated by totalling the thickness of each site and dividing by the number of sites.

Average Humification: was determined by calculating a humification factor for each interval recorded on the field form. The humification factor is obtained by multiplying the interval thickness by the recorded humification. The average humification of a layer was obtained by dividing the cumulative humification factor of the layer by the cumulative depth of the layer. Hence, the average humification is weighted according to the thickness of various humification degrees intersected in the drill holes.

Volume: was calculated for the portion with peat depth exceeding 1 m by multiplying the average depth of a layer by the area. In many cases, relatively few sites were investigated in areas where peat depth was less than 1 m. For this reason, the portion of the peatland with depths less than 1 m, i.e., the area on the isopach map between the limit of the deposit and the 1 m contour, was assumed to have an average depth of 0.5 m. To obtain the volume of the entire peatland, this depth was multiplied by the area where peat depth was less than 1 m, i.e., the difference between the total area and the area exceeding 1 m depth. Because of the assumption made, the volume of the entire peatland has not been subdivided into surficial and humified layers.

Stump Content: is an estimate of the percentage of the peat volume comprising stumps and is made using the number of snags intersected. Details of the calculation procedure are given in the explanation of Table I-19 of Henderson and Keys (1985). Since the number of stumps in a deposit has an effect on peat mining, this parameter is useful for comparison of deposits.

Descriptive Summary: The numeric data pages of the summary description are supplemented by a descriptive portion similar to Figure 8. The "General Description and Drainage" section gives an overview of the type and morphology of the peatland and discusses the surface vegetation of the deposit. The morphology and slope of the surface and base of these deposits are based on an examination of the profiles. The drainage potential is interpreted from this information.

The "Distribution of Peat Types" section discusses the occurrence of the various peat type groups. Numerous detailed calculations (see earlier section on computer processing) have been made for each peatland but the bulk of this information limits its general distribution. However, the salient features of these results are capsulized in this section. The description of peat stratigraphy for the deposit is based on an examination of the profiles.

The "Suggested Uses" section discusses the utilization potential of the peatland in relation to the quantities and types of peat present. The section includes a brief discussion of factors that enhance or limit the utilization potential.

An abbreviated version of these three sections under the heading "General Description" is used for peatlands studied by traverse. The lack of profiles limits the amount of interpretative discussion.

Physical and Chemical Analysis Tables: For those peatlands from which samples were collected for physical and chemical analysis, the summary description also includes tables displaying the results. These tables (Figures 9 to 12) have a vertical scale of 2.5 cm = 1 m to give a visual appreciation of the length of each sample.

As previously mentioned in the data collection section (p. 19, 20), two types of sites were sampled. Samples collected at sites with low potential for fuel utilization were called dry peat samples since the majority of the results were expressed as a function of dry peat. The results for each site are given in a two-page table similar to Figures 9 and 10. Samples collected at sites with good potential for fuel peat utilization were called peat ash samples since many of the results were expressed as a function of peat ash. Again a two-page table similar to Figures 11 and 12 was used to display the results for each site. To further emphasize the difference in the two sample types, the reader will note that dry peat samples have been printed upright on the page, whereas the peat ash samples are sideways on the page.

Samples were normally collected only on larger peatlands on the assumption that these had a better probability of development. A total of 1326 dry peat samples were collected at 130 sites on 121 peatlands. A further 937 peat ash samples were collected at 113 sites on 94 peatlands. These figures include 32 peatlands where both types of samples were collected.

The first column of Figure 9 gives the depth at the bottom of the sample. Thus, the first sample was from 0 to 30 cm in depth, the second from 30 to 50 cm and so on, with the spacing of each sample representing its overall thickness. The second column gives the number of the sample. Normally, the sample number includes the Bog Number, e.g., sample 434-1 is sample number 1 on Bog 434, but Bog Number was suppressed in the printing of the tables. The letter codes used for the peat types in the third column are given in Figure 5. The fourth column gives the number representing the von Post degree of humification for the sample.

The fifth column gives the moisture content on a per cent-of-wet-weight basis. The sixth column gives the bulk density, also called dry bulk density or dry density, in kg/m^3. The remaining eight columns give the analytical results in parts per million (ppm) of dry peat for boron, manganese, vanadium, nickel, copper, lead, zinc and uranium. Blank spaces indicate variables that were not tested on that sample. A "less-than" symbol (<) indicates a content lower than the value given that could not be more accurately determined with the methods used. An "N" in the results indicates a value that was analyzed for but was not detected.

Columns 1 and 2 of Figure 10 repeat the depth and sample number information given in Figure 9. Columns 3 to 7 give the analytical results for iron, calcium, potassium, sodium and magnesium in ppm of dry peat. Columns 8 to 11 give the results for carbon, sulphur, silica, and phosphorus in per cent of dry peat. Column 12 gives the results of chlorine analysis in ppm of dry peat.

The peat ash results shown in Figure 11 have depth, sample number, peat type, humification, moisture content, and bulk density in columns 1 to 6 in a fashion similar to the results for dry peat samples. Column 7 gives the heat of combustion (calorific value) in calories per gram. Column 8 gives the sulphur content of dry peat in per cent. Column 9 gives the percentage of volatiles in the dry matter. Column 10 gives the percentage of dry matter that is ash. Column 11 gives the approximate melting point of the ash in degrees Celsius. Columns 12 to 14 give the carbon, total nitrogen and total phosphorus contents as a per cent of dry peat. Columns 15 to 17 give the chlorine, available nitrogen and available phosphorus contents of dry peat in ppm. Columns 18 and 19 give the sulphate and silica contents as a percentage of peat ash.

Columns 1 and 2 of Figure 12 repeats the depth and sample number columns from Figure 11. Columns 3 to 13 give the soluble silicon, iron, aluminum, calcium, potassium, sodium, manganese, phosphorus, boron, molybdenum, and magnesium contents as a percentage of peat ash. Columns 14 to 17 give the nickel, copper, lead, and zinc contents of peat ash in ppm. Column 18 gives the uranium content of dry peat in ppm.

SUMMARY OF INVESTIGATION

EXTENT OF PEATLAND

Langmaid (1962) estimated the extent of peatlands in the Province from available soil, forest inventory, and peatland maps; he felt that 125 000 ha was "a reliable estimate". Korpijaakko (1975), who produced a preliminary distribution map of muskeg occurrence using computer plotting techniques, estimated that 10% of the surface area (about 700 000 ha) of the Province was peatland. The Airphoto Analysis Associates Consultants Ltd. study (1975) delineated about 88 000 ha of peatland. The early phases of the Peatland Inventory Program indicated this value to be low; thus, a figure "in excess of 100,000 ha" was estimated (Gemmell and Keys 1979; Keys 1980). An internal report of the New Brunswick Department of the Environment (Montreal Engineering Co. Ltd. 1979) indicated that there were 392 000 ha of wetlands in the Province, but this estimate included 306 000 ha of coastal lagoons, tidal flats, and coastal marshes.

The results of the Peatland Inventory Program indicate that there are approximately 140 000 ha of peatland in New Brunswick. An area of 132 524 ha were included in the field investigations. There are at least 19 peatlands totalling 3056 ha that were not investigated due to their location within Kouchibouguac National Park. (The total area of peatland within the Park is estimated to be about 4500 ha, but this includes portions of three large peatlands that are primarily outside the boundaries. Field information was extrapolated for the portions of these three deposits within the Park and they were included in their entirety in the investigated totals.) In addition, it is estimated that individual peatlands having an area less than 25 ha (including those listed in Appendix 4) total 4420 ha. The estimate of 140 000 ha of peatlands constitutes about 1.9% of the surface area of the Province.

SURVEY TOTALS

In the course of the project, a total of 817 peatlands were investigated. A "grid" type of survey was used on 214 deposits (53 of these also had some "traverse" points), whereas the remaining 603 deposits were investigated using the "traverse" type of survey. On the grid deposits, 1484 km of grid line was cut and chained. Pickets were placed at 100 m intervals along these lines to locate investigation sites. A total of 20 451 field sites were investigated by the two types of survey. Of these, 1769 sites were: situated on mineral soil peripheral to the peatland; depth probe sites only; or otherwise incomplete and not included in calculations. The remaining 18 662 sites were found to have an average depth of 2.76 m. At these sites, a total of 51 475 m of core was recovered and logged. Of these, 16 289 sites had peat depths of 1 m or greater and an average depth of 3.07 m.

All calculated data have been subdivided into two groups based on the state or level of decomposition as determined according to the von Post scale of humification. This 10-step scale has been described in an earlier section of the report. A capital "H" followed by a numeral is the standard abbreviation used to identify the various degrees in the scale. The term "surficial layer" denotes peats of a relatively low level of decomposition (H1 to H4) that, subject to several other considerations, is considered to have good potential for horticultural use. The term "humified layer" denotes peats that are at a higher level of decomposition (H5 to H10). These peats have traditionally been considered to have potential for fuel use. Table 4 provides a breakdown of average depths for these layers.

The maximum depth, the average depth of the entire peatland, the average depth of the portion with depths greater than 1 m, and subdivisions of this depth into surficial and humified layers are provided for each peatland in Table P1 of Appendix 1.

The 817 peatlands investigated were found to have a total area of 132 524 ha. The portions of these peatlands where peat depth exceeded 1 m was found to be 67 867 ha (51% of the total area). A peat depth of 1 m has been assumed to be the minimum for a peat mining operation. Consequently, the subdivision of data on this basis is used frequently in this section of the report. The investigated peatlands range in size from very small ones to the largest peatland, in the Escuminac area (No. 324, surveyed in three sections), which comprises 6 291 ha (15 540 acres). The frequency distribution of various size ranges is shown in Table 5.

In Table 6, the total area of investigated peatland and the portion where peat depth exceeds 1 m are compared to the area of the county in which they are situated. The table also provides the proportion of peatland on Crown versus private lands in each county. The counties are listed in descending order of total peatland area.

TABLE 4.
SUMMARY OF AVERAGE PEAT DEPTHS

		Average Depth (m)		
	No. of Sites	Surficial Layer	Humified Layer	Overall Layer
All Calculated Sites	18 622	1.74	1.02	2.76
Calculated Sites With 1 m or Greater Peat Depth	16 289	1.94	1.13	3.07
Calculated Sites With Less Than 1 m Peat Depth	2373	0.36	0.23	0.59

Note: Total Sites Investigated = 20 431
Number of Sites Not Included in the Calculations = 1769

TABLE 5.
FREQUENCY DISTRIBUTION OF SIZE RANGES
OF INDIVIDUAL PEATLANDS

Size Range (ha)	No. With Total Area Within Range	%	No. With Area Where Peat Depth Exceeds 1 m Within Range	%
< 1	-	-	40	5
1-20	37	5	252	31
20-50	225	28	215	26
50-100	216	26	142	17
100-200	165	20	96	12
200-300	67	8	34	4
300-500	65	8	22	3
500-1000	30	4	9	1
1000+	12	1	7	1

TABLE 6.
EXTENT OF INVESTIGATED PEATLANDS IN EACH COUNTY
(all areas are in hectares)

COUNTY	AREA OF COUNTY	TOTAL AREA OF PEATLAND	PORTION WHERE PEAT DEPTH EXCEEDS 1 m	AREA ON CROWN LANDS	AREA ON PRIVATE LANDS
Northumberland	1 222 480	24 768	14 007	21 507	3 261
York	934 990	23 427	11 706	13 094	10 333
Kent	463 610	23 015	12 391	19 256	3 759
Sunbury	279 720	17 981	4 017	11 001	6 980
Gloucester	484 330	17 005	11 515	11 354	5 651
Westmorland	375 550	8 359	4 697	3 600	4 759
Queens	396 270	7 998	4 307	3 216	4 782
Charlotte	367 420	5 500	2 802	1 779	3 721
Carleton	336 700	2 258	1 316	279	1 979
Saint John	157 990	812	466	254	558
Victoria	554 260	572	386	0	572
Kings	370 370	379	6	39	340
Albert	183 890	280	145	151	129
Restigouche	857 290	170	106	147	23
Madawaska	352 240	0	0	0	0
TOTALS	7 327 110	132 524	67 867	85 677	46 847

The total area and the area with peat depth greater than 1 m is listed for each individual peatland in Table N1 of Appendix 1. Further subdivisions of these areas into Crown and private ownership on individual peatlands is also provided in this table.

In the estimation of the volume of each peatland, the average depth of the portion with 1 m or greater peat depth was multiplied by the area of the same portion, with subdivisions into surficial and humified layers. For the portion with peat depths less than 1 m, the average depth was assumed to be 0.5 m, but subdivisions were not made. The total obtained for this area was summed with the previous total to obtain the total volume of each deposit, as indicated in Table P1 of Appendix 1. The total volume of all investigated peatlands is shown for the same categories in Table 7.

Using the sites with a peat depth of 1 m or greater, the frequency of occurrence of various peat types was determined and is displayed in Table 8. Sphagnum-dominated peats comprised 83.9% of the surveyed resource in the Province with pure Sphagnum comprising 49.4%. Carex-dominated (sedge) peats comprised 16% with only 0.1% Bryales (also called brown moss) peats. More than 95% of the surficial layer consisted of Sphagnum-dominated peats with 68% consisting of pure Sphagnum. The occurrence of minor peat constituents, such as shrubs (N), wood (L), Eriophorum (Er), and other less common components as listed in Figure 5, were relatively infrequent. Peat constituents were identified in the field to the nearest 10%. Table 9 shows the percentage of the volume (where peat depth exceeds 1 m) that contains minor constituents in amounts greater than 10%. Minor constituents were most frequent in the humified layer.

TABLE 7.
TOTAL VOLUME OF INVESTIGATED PEATLANDS

	Surficial Layer	Humified Layer	Overall
All Peatlands			2 415 000 000
Portions Where Peat Depth Exceeds 1 m	1 287 000 000	804 000 000	2 091 000 000

Note: In addition, 142 000 000 m^3 of ooze was delineated.

TABLE 8.
FREQUENCY (PERCENTAGE OF GREATER THAN 1 m VOLUME) OF OCCURRENCES OF VARIOUS PEAT TYPES

Peat Type	Surficial Layer	Humified Layer	Total Layer
S	68.0	17.4	49.4
NS	19.6	16.9	18.6
LS	0.4	3.8	1.7
ErS	1.0	0.9	1.0
NErS	0.3	1.0	0.6
ErCS	0.1	0.3	0.2
NCS	1.9	9.6	4.7
LCS	0.1	3.1	1.2
LNS	0.1	0.6	0.3
CS	3.4	8.5	5.3
Other S-peats	0.7	1.7	0.9
Total Sphagnum Peats	95.6	63.8	83.9
SC	1.8	11.7	5.4
NSC	0.9	6.7	3.0
LSC	0.1	2.2	0.9
NC	0.5	4.3	1.9
LC	< 0.1	0.8	0.3
C	0.8	7.4	3.2
BC	< 0.1	0.3	0.1
NBC	< 0.1	0.1	< 0.1
Other C-peats	0.2	2.4	1.1
Total Sedge Peats	4.4	35.9	16.0
NCB	< 0.1	< 0.1	< 0.1
CB	< 0.1	0.1	0.1
B	< 0.1	0.2	< 0.1
Other B-peats	< 0.1	< 0.1	< 0.1
Total Bryales Peats	< 0.1	0.3	0.1

NOTE: See Figure 5 for legend to peat type codes.

TABLE 9.
PERCENTAGE OF VOLUME (WHERE PEAT DEPTH EXCEEDS 1 m) WHERE MINOR PEAT TYPES OCCUR IN AMOUNTS GREATER THAN 10%

Constituent	Surficial Layer	Humified Layer	Overall Layer
L (wood)	0.3	6.1	2.5
N (shrubs)	4.3	14.9	8.2
Er (*Eriophorum*)	0.4	0.8	0.5
Other	0.3	0.8	0.5

Table 10 displays the average humification of each peat type listed in Table 8. As can be seen in Table 10, relatively low degrees of humification are associated with the pure *Sphagnum* peats. Their high frequency of occurrence exerts a major influence on the overall weighted averages.

In Table 11, the frequency of occurrence of the 10 degrees of humification is illustrated. The term "surficial layer" has previously been defined as H1 to H4, but occasionally lenses of higher degrees of humification occurred within this layer. Similarily, the humified (H5 to H10) layer contains lenses of lower degrees of humification. These inclusions are reflected in Table 11.

Tables 8 to 11 and Appendix 1 serve as examples of a preselected format for data retrieval at the regional level. These examples provide a summary of data for all peatlands in the Province. Similar tables can be readily produced on request for selected subgroups of these data (Henderson and Keys 1985). More than 600 parameters can be used in any combination to select subgroups. These parameters include: peat types; degrees of humification; deposit size (area and/or volume); geographic boundaries (map sheets, longitude/latitude limits, etc.); ownership; and a variety of other factors. Maximum or minimum limits can be specified for each parameter. This enables a user to specify, for example, a requirement for a peatland having an area greater than 200 ha, having a volume of poorly decomposed (H1 to H4) pure *Sphagnum* peat in excess of 3 000 000 m^3, and having certain geographic boundaries. A printout of all peatlands that meet these criteria would include, as a minimum, tables similar to those in Appendix 1 as well as those described in this section. Totals, averages, percentages, and various other factors are recalculated in each output to reflect only those peatlands that met the grouping criteria.

TABLE 10.
WEIGHTED AVERAGE HUMIFICATION OF VARIOUS PEAT TYPES WHERE PEAT DEPTH EXCEEDS 1 m

Peat Type	Surficial Layer	Humified Layer	Total Layer
S	2.9	5.9	3.3
NS	3.4	6.0	4.2
LS	3.7	6.9	6.4
ErS	3.1	6.1	4.1
NErS	3.6	5.9	5.1
ErCS	3.7	6.3	5.6
NCS	3.7	6.3	5.6
LCS	3.9	7.1	6.9
LNS	4.1	6.8	6.4
CS	3.4	6.6	5.3
Other S-peats	3.1	5.9	4.4
All S-peats	3.0	6.2	3.9
SC	3.8	6.2	5.7
NSC	3.9	5.7	5.4
LSC	4.0	7.1	6.9
NC	3.8	5.0	4.8
LC	4.1	6.4	6.2
C	3.9	5.8	5.5
BC	3.6	4.3	4.2
NBC	3.3	4.5	4.3
Other C-peats	3.9	4.4	4.4
All C-peats	3.8	5.8	5.4
NCB	3.0	4.3	4.3
CB	3.1	4.0	3.9
B	2.8	3.7	3.6
Other B-peats	-	-	-
All B-peats	3.0	3.9	3.9

NOTE: See Figure 5 for legend to peat type codes.

TABLE 11.
FREQUENCY OF OCCURRENCE (PERCENTAGE OF VOLUME WITH DEPTH GREATER THAN 1 m) OF THE INDIVIDUAL VON POST DEGREES OF HUMIFICATION

Degree of Humification	Surficial Layer	Humified Layer	Overall Layer
1	0.7	-	0.4
2	18.1	-	11.4
3	54.9	2.2	35.6
4	24.2	15.0	20.9
5	1.3	21.8	8.8
6	0.4	18.4	7.0
7	0.3	21.2	7.9
8	0.1	18.4	6.8
9	-	2.9	1.1
10	-	0.1	0.1

REGIONAL FEATURES OF THE RESOURCE

The primary objective of this study was the collection and compilation of data on the Province's peat resources. However, this data bank provides a wealth of information that can be used to interpret the development history of the peatlands. In turn, this can be used to assess differences between styles of development and peatland types in various regions of the Province, as well as to evaluate the parameters that resulted in these differences. Although data interpretation was not a primary goal of the project, this chapter of the report presents a summary of regional features of the resource and represents a formalization of working hypotheses that were developed in the course of the project. The purpose of this presentation is twofold. First, the development and refinement of these hypotheses is, to a large degree, a function of experience gained during the field phase of the program, and it would appear appropriate that these ideas be recorded to assist future researchers who may wish to further evaluate the data bank and expand on our interpretations. Second, the interpretations that follow group the peatlands of the Province on the basis of similarities in stratigraphy and other factors. Since the peatlands within each group have similar characteristics, discussions of development potential are facilitated and, in the long term, resource management strategies can be developed on the basis of these zones.

A preliminary zonation by Keys (1980) divided the province into three zones: east, central, and west. The paper discussed a general east to west trend across the Province of increased basin concavity and corresponding variations in peat stratigraphy. Keys, Klemetti and Henderson (1982) described five peatland regions and discussed the characteristics of each. The following sections of this study further refine their interpretations and represent a more specific evaluation of the data with respect to predetermined grouping criteria.

Previous investigations on the ecological development and classification of peatlands relevant to New Brunswick include Anrep (1919, 1923, 1927), Auer (1930), Damman (1977, 1979), Dansereau and Segadas-Vianna (1952), Leverin (1940, 1941), Worley and Sullivan (1980), Pollett and Wells (1980), and Wells (1981). The southern coastal region (Region 4) in this report was first described by Ganong (1897), and further described by Korpijaakko (1976), Damman (1977), and Worley (1980). The studies by Korpijaakko (1976) and Korpijaakko and Radforth (1972) describe four zones based on the interpretation of pollen diagrams. The ideas presented by these authors have been incorporated into this report where possible.

One of the major difficulties encountered in the development of grouping criteria for the peatlands of the Province was the selection of a suitable scheme of classification. Numerous peatland and wetland schemes, e.g., Zoltai et al. (1975), Tarnocai (1980), were available, which assigned descriptive nomenclature to peatland types based on surface expression or morphological characteristics. These classifications are effective in differentiating between varying peatland types and are amenable to classifications based on interpretations of aerial photographs. They have the limitation of being based primarily on classification of the surface morphology and vegetation and, thus, deal mainly with two-dimensional information. In this study, only limited emphasis was placed on surface vegetation. In part, this relates to the availability of a two-dimensional (i.e., surface vegetation and morphology) classification in the form of the 1975 Airphoto Analysis Associates Consultants Ltd. report. Furthermore, domed or raised bogs are the principal peatland type in the Province and these constitute only a single category in existing classification schemes. In other words, a high frequency of occurrence of a single category in a particular classification scheme limits the applicability of the classification as a method of differentiation between peatlands.

This situation was further complicated by the wealth of peat depth information (i.e., a third dimension), as well as surface elevation data and cross sections. These data indicate subtle differences in elevation, slope or morphology that often are not evident on the ground, let alone from interpretation of aerial photographs. Since the original classifications were not based on such detail, difficulties were encountered in applying these classifications to the available information. As well, it was found that two peatlands with similar characteristics based on two-dimensional (surface) information frequently differed substantially in the third (or stratigraphic) dimension.

The development of a new classification scheme or modification of an existing one to have greater applicability to three-dimensional data was considered to be beyond the scope of this study. Thus, the grouping of peatlands that follows is descriptive in nature and may have limited applicability outside New Brunswick. This grouping has been made primarily on the basis of the peat stratigraphy and is designed to facilitate a description of the peat resource in each group. The stratigraphic profile of a peatland (see Back Pocket 2) is a record of successive vegetation groups from the time of initial peat formation to the existing surface vegetation communities. It displays, and to some degree is a consequence of, surface and basal substrate morphology.

Seven groups, or regions, as well as several subgroups have been recognized (Figure 13). Although peat stratigraphy has been the primary characteristic used in the grouping, other factors have been evaluated in the placement of boundaries between groups when peatland occurrence was limited. In particular, recently completed mapping of surficial geology (Rampton et al. 1984) has delineated units that correlate well with the stratigraphic grouping of peatlands, particularly in Regions 1 and 2. Climatic regions (van Groenewoud 1983) were also considered in the placement of boundaries.

The following sections present the general characteristics of each of the regions indicated in Figure 13. Numeric data regarding average depths, volumes, peat types, etc. are summarized for each region. Information similar to that displayed in Tables 7 to 11 has been capsulized for each region in the descriptions, but the full tables have been omitted for the sake of brevity. The generalized stratigraphy of peatlands in the region is discussed and the state of knowledge on the mode of origin and development is reviewed. Surface vegetation, including lists of common species, is discussed. Species lists are as accurate as possible, but botanical verifications were not completed and some identifications, particularly of moss species, may not have full reliability. Since every peatland has individual characteristics, generalized regional descriptions will have exceptions. Anomalous occurrences or trends within regions have been reported in an attempt to outline features and ideas that may warrant further investigations by subsequent researchers.

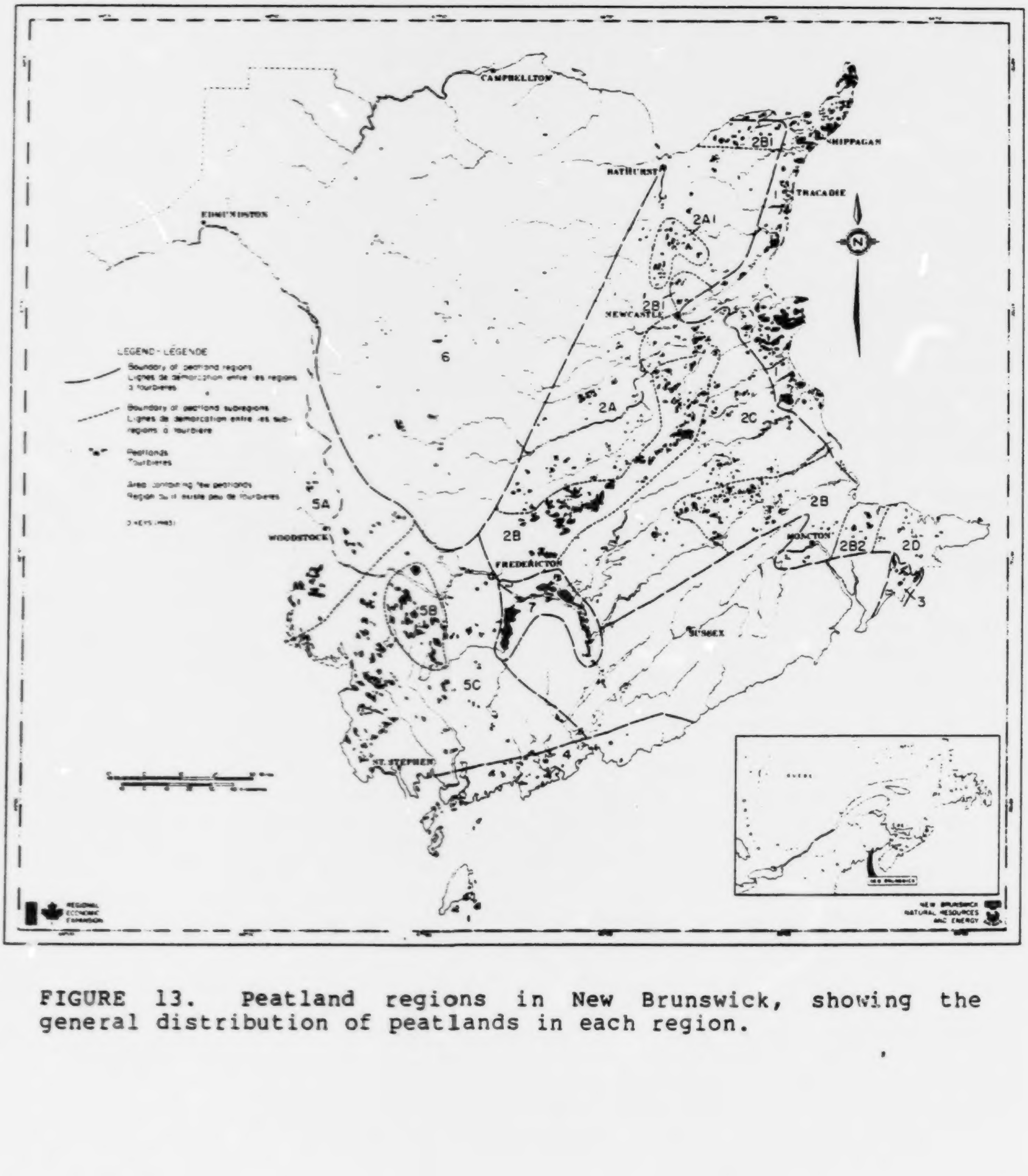

CAMPBELLTON
SHIPPAGAN
BATHURST
TRACADIE
EDMUNDSTON
NEWCASTLE
2B1
2A1
2B1
6
2A
2C
5A
WOODSTOCK
2B
FREDERICTON
2B
MONCTON
2B2
2D
3
5B
7
5C
SUSSEX
4
ST. STEPHEN
N
LEGEND - LÉGENDE
Boundary of peatland regions
Lignes de démarcation entre les régions à tourbières
Boundary of peatland subregions
Lignes de démarcation entre les sub-régions à tourbière
Peatlands
Tourbières
Area containing few peatlands
Région où il existe peu de tourbières
REGIONAL ECONOMIC EXPANSION
NEW BRUNSWICK NATURAL RESOURCES AND ENERGY

FIGURE 13. Peatland regions in New Brunswick, showing the general distribution of peatlands in each region.

The terminology used to indicate the various components of a peatland may be unfamiliar to some readers. Figure 14 illustrates a representative raised bog in cross section, and indicates the names used to describe the different parts.

The term 'wetland' has a broad definition that incorporates various types of peatlands as well as marshes, estuaries, areas of shallow water, and aquatic environments classed as having the potential for peat formation. The term 'peatland' is occasionally used synonymously with wetland but has a more restricted definition in the strict technical sense. In a geological context, a peatland is considered to have a minimum accumulation of 30 cm of peat and this definition commonly excludes areas of shallow water, many marshes, and similar peat-forming environments. It is, however, common practice to delineate the extent of a peatland (i.e., peatland boundary) on the basis of vegetation changes discernible on aerial photographs. This often results in areas of shallow peat depth near the peatland edge being included under the term peatland. This practice was followed in the present study.

Wetlands are subdivided into five main categories: bog, fen, swamp, marsh and shallow open water. Peatland encompasses the bog, fen, swamp, and certain marsh categories. The definitions of these terms, and the methods for their diferentiation are based on a classification developed by the National Wetlands Working Group (Tarnocai 1980) as summarized below.

Bog - an ombrotrophic (i.e., surface vegetation takes nutrients primarily from precipitation) peatland with the water table at or near the surface. The bogs may be treed or treeless, and are usually covered with Sphagnum mosses with ericaceous shrubs frequently present.

Fen - a minerotrophic (i.e., surface vegetation takes nutrients from groundwater) peatland with a water table usually at or above the surface. Vegetation may include sedges, grasses, reeds, brown mosses (Bryales), certain sphagnum mosses, ericaceous shrubs and trees.

Swamp - a minerotrophic peatland with standing or gently flowing waters occurring in pools or channels. The water table usually is at or near the surface. The vegetation is characterized by a dense tree or shrub cover of deciduous or coniferous species, herbs and some grasses.

Marsh - a minerotrophic peatland (or wetland) that is periodically inundated by standing or slowly moving waters. Surface waters may fluctuate seasonally. Vegetation includes emergent sedges, grasses, rushes and reeds, which may have interspersed areas of open water and aquatic plants.

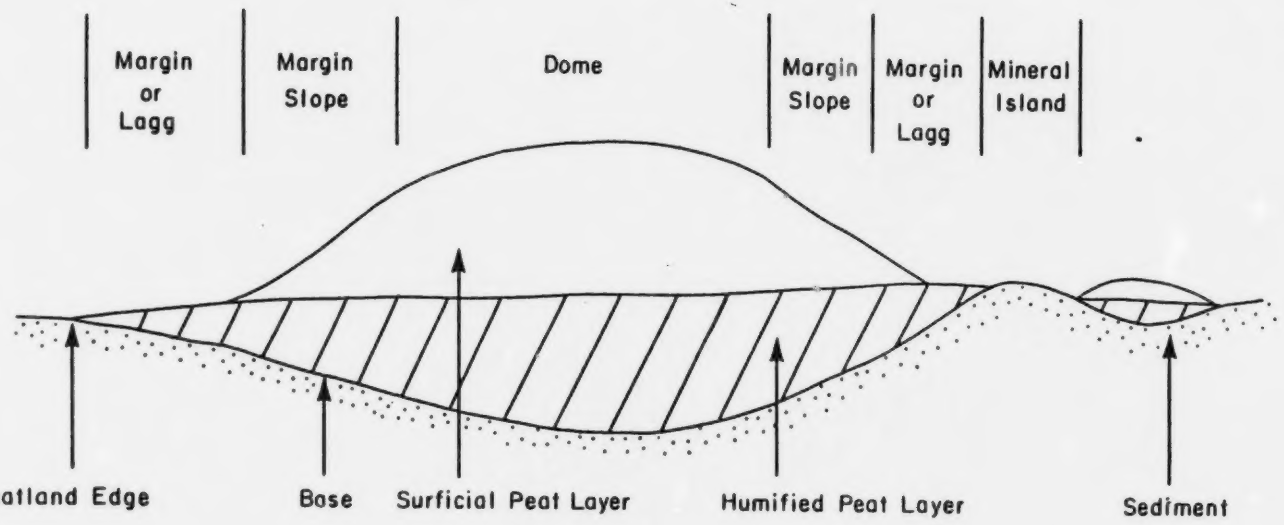

Margin or Lagg
Margin Slope
Dome
Margin Slope
Margin or Lagg
Mineral Island
Peatland Edge
Base
Surficial Peat Layer
Humified Peat Layer
Sediment

Figure 14. Cross section of a raised bog illustrating the location of various components.

It should be recognized that peatlands are dynamic ecosystems that typically have evolved over periods of several thousand years. Peatland formation may have initiated in a swamp or marsh environment and evolved through fen conditions into a bog. Examination of the stratigraphy of a peatland, as discussed in the sections that follow, can give insight into the nature of this evolution and forms the basis for the differentiation of the regions.

REGION 1

Region 1 consists of a 5-15 km wide band on the northeast and east coast of New Brunswick along the Gulf of St. Lawrence (Figure 13). Peatlands in this region are predominantly bogs with very pronounced doming and open cover vegetation, i.e., low tree cover. Highly ombrotrophic conditions (i.e., surface vegetation obtains nutrients from precipitation only) are characteristic and thick layers of Sphagnum have accumulated. Maximum peat depths of 8-9 m were commonly observed in larger deposits.

Large peatland complexes, the result of a merging of several nearby peatlands during development, occur at Escuminac (6291 ha), Miscou (3140 ha) and Tabusintac (1236 ha). The average size of the investigated peatlands in the Region is 348 ha.

Ninety-nine peatlands totalling 35 070 ha were investigated in this region; of these, 65 deposits were studied by the grid method. An additional 19 peatlands totalling over 3000 ha were within Kouchibouguac National Park and were not investigated. Of the 35 070 ha, 67% (23 661 ha) was found to have peat depths in excess of 1 m. The average depth of peatlands in the region was found to be 3.3 m. The total volume of peatlands in this region was 924 000 000 m^3. The area with depths greater than 1 m comprised 855 000 000 m^3, with the surficial layer (H1 to H4) constituting 76% of this. Sphagnum-dominated peats constituted 93% of the deposits studied and formed more than 93% of the surficial layer. Peat that is 100% Sphagnum formed 67% of the surficial layer. (Table 12)

Stratigraphy: The stratigraphic profile of a typical peat deposit consists of 3-6 m of poorly humified Sphagnum peat underlain by 0.5-1 m of well-humified Sphagnum, Sphagnum-Carex, or Carex peats. Shrubby layers are uncommon and rarely constitute more than 10% of any layer. Basal ooze layers were uncommon.

The transition between poorly and well-decomposed peats normally occurs over a 20-50 cm interval. The thin basal humified layer is dominated by Sphagnum peats in the northern part of the region, and by Carex peats containing shrubs and wood chips in the south. This trend parallels the trend of

TABLE 12.
COMPARISON OF THE SEVEN PEATLAND REGIONS

	Region							
Parameter	1	2	3	4	5	6	7	TOTAL
No. of Deposits (grid/traverse)	99 (65/34)	461 (106/355)	11 (6/5)	35 (1/34)	161 (30/131)	33 (6/27)	17 (-/17)	817 (214/603)
Total Area (ha) (average area)	35 070 (354)	51 684 (112)	2 097 (190)	1 966 (56)	26 909 (167)	2 514 (76)	12 286 (723)	132 524 (162)
Area With Depth >1 m (ha) (% of total area)	23 661 (67)	23 480 (45)	1 298 (62)	1 092 (56)	13 757 (51)	1 498 (60)	3 096 (25)	67 867 (51)
Average Depth (m)	3.3	2.5	2.3	2.5	2.7	2.5	1.6	2.8
Total Volume (m^3 x 1 000 000)	924	794	35	36	465	45	117	2 416
Volume of Portion with Depth >1 m (m^3 x 1 000 000) (% Surficial/% Humified)	855 (76/24)	654 (59/41)	31 (90/10)	32 (79/21)	398 (40/60)	40 (52/48)	71 (29/71)	2 091 (62/38)
Peat Type (% of volume)								
Surficial Layer*	98/2	94/6	85/15	99/1	91/9	94/6	33/67	96/4
Humified Layer*	80/20	57/42	26/74	87/11	60/40	49/50	12/88	64/36
Overall Layer*	93/7	79/21	80/20	97/3	72/28	73/23	19/81	84/16
Percentage of Surficial Layer With a Peat Type of 100% Sphagnum (average humification)	67 (3.0)	71 (2.8)	61 (2.5)	85 (2.9)	65 (3.2)	62 (2.9)	5 2.5)	68 (2.9)

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* % Sphagnum/% Carex

increasing basin concavity to the south of the region. During peatland formation, this increased concavity would provide greater water retention and provide an environment that would enhance the proliferation of plants such as *Carex*. A profile and plan view of a typical deposit is presented in Figure 15.

All of the peatlands in this region are situated on 0.5-1.5 m of postglacial marine sediments overlying Carboniferous sandstones as delineated by Rampton *et al*. (1984). Sand was the most common sediment type found underlying the peatlands and this correlates well with the interpreted beach and intertidal environment reported by Rampton *et al*. (1984). Despite this reasonably porous sediment and a steady, but very low, slope (Figure 15), peat development appears to have been a primary phase after regression of the sea. Korpijaakko (1976) suggests that *Sphagnum* growth could occur in such an environment if sufficient moisture is available to saturate the soil. Blanket bogs on hillsides in Newfoundland are cited as examples. By using pollen diagrams supported by radiocarbon dates, she determined that peat growth began in a bog near Tracadie (No. 517A) about 8500 years B.P. Wood fragments from the base of a bog at Point Escuminac (No. 338) were dated at 4300±130 years B.P. Age dates at two sites were also determined in the present study (Appendix 6). At the Green Point Bog (No. 532) a sample at the base of the deposit was dated at 7230± 110 years. A sample from 20 cm above the base of a deposit at Pokemouche (No. 530) was dated at 2250±80 years. Michaud (1985), in his statistical analysis of parameters affecting the type of peatland development in New Brunswick, indicates an excess of precipitation over evaporation exists in this region and may be a factor in the accumulation of the thick *Sphagnum* layers. Thus, a cool, moist coastal climate probably was a major influence in the initial formation of peatland as well as in its later development.

Based on sea level fluctuations summarized in Rampton *et al*. (1984), it would appear that declining sea levels subsequent to deglaciation exposed the marine sediments and permitted peatlands to form (Figure 16a, b). Sea levels continued to decline and expansion of the peatlands occurred (Figure 16c). After considerable development of the peatlands, sea levels began to rise relative to the land mass (Figure 16d, e). The data in Appendix 6 have been used to estimate the rate of sea level rise. Samples from Bog 530 suggest relative sea level rise to be 17.5 cm per century. The calculated rate for Bog 532 is 5.4 cm per century but a rate of 11 cm per century is obtained if the base of the deposit is assumed to be 2 m above sea level at the radiocarbon date.

The same information has also been used to calculate rates of peat accumulation. The results show rates of accumulation of 0.54, 0.92, and 1.75 mm/year, and clearly indicate that peat must be considered a nonrenewable resource in all but a

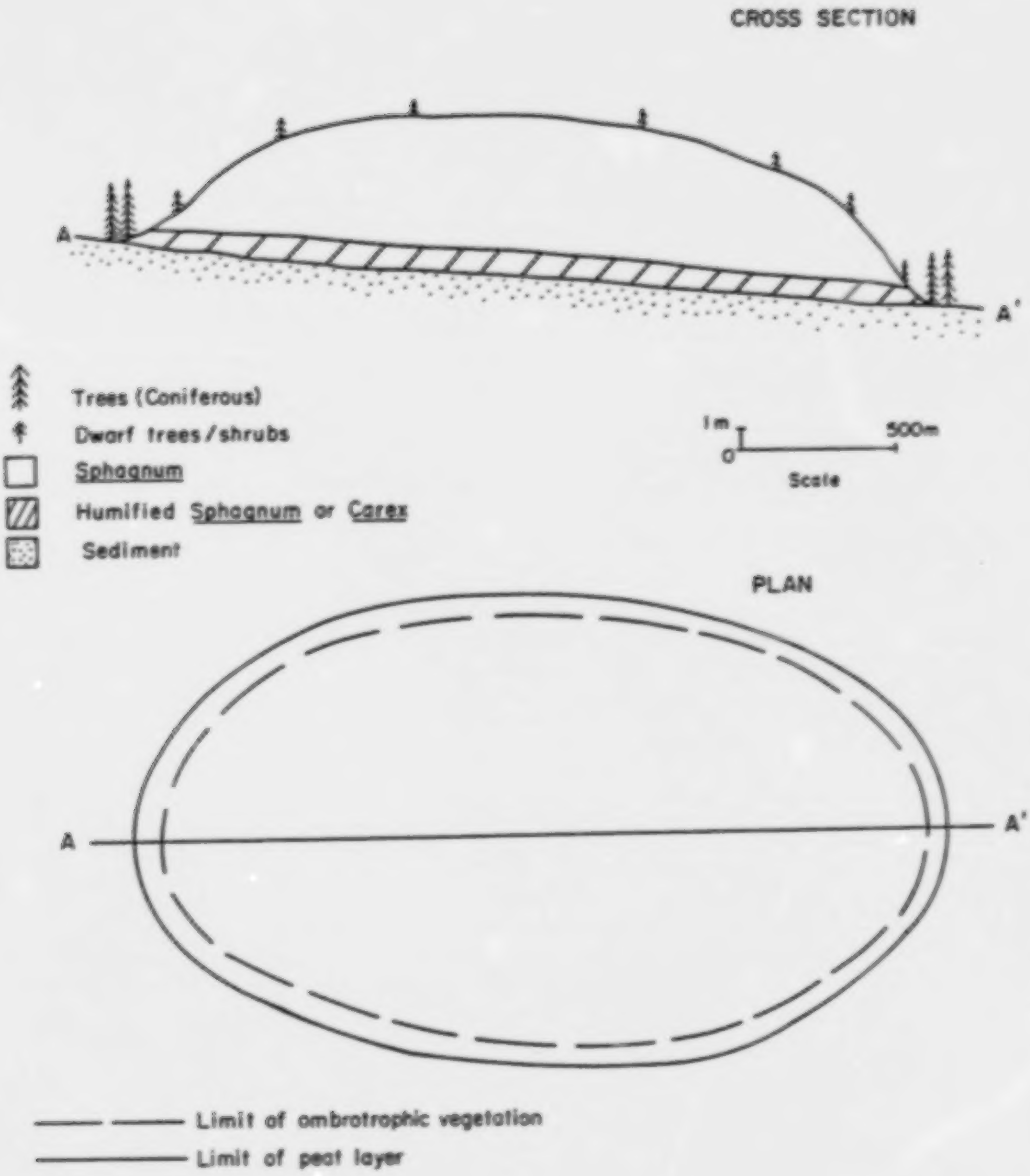
CROSS SECTION
A
A'
Trees (Coniferous)
Dwarf trees/shrubs
Sphagnum
Humified Sphagnum or Carex
Sediment
1m
0
500m
Scale
PLAN
A
A'
Limit of ombrotrophic vegetation
Limit of peat layer

FIGURE 15. Typical style of occurrence of peatlands in Region 1.

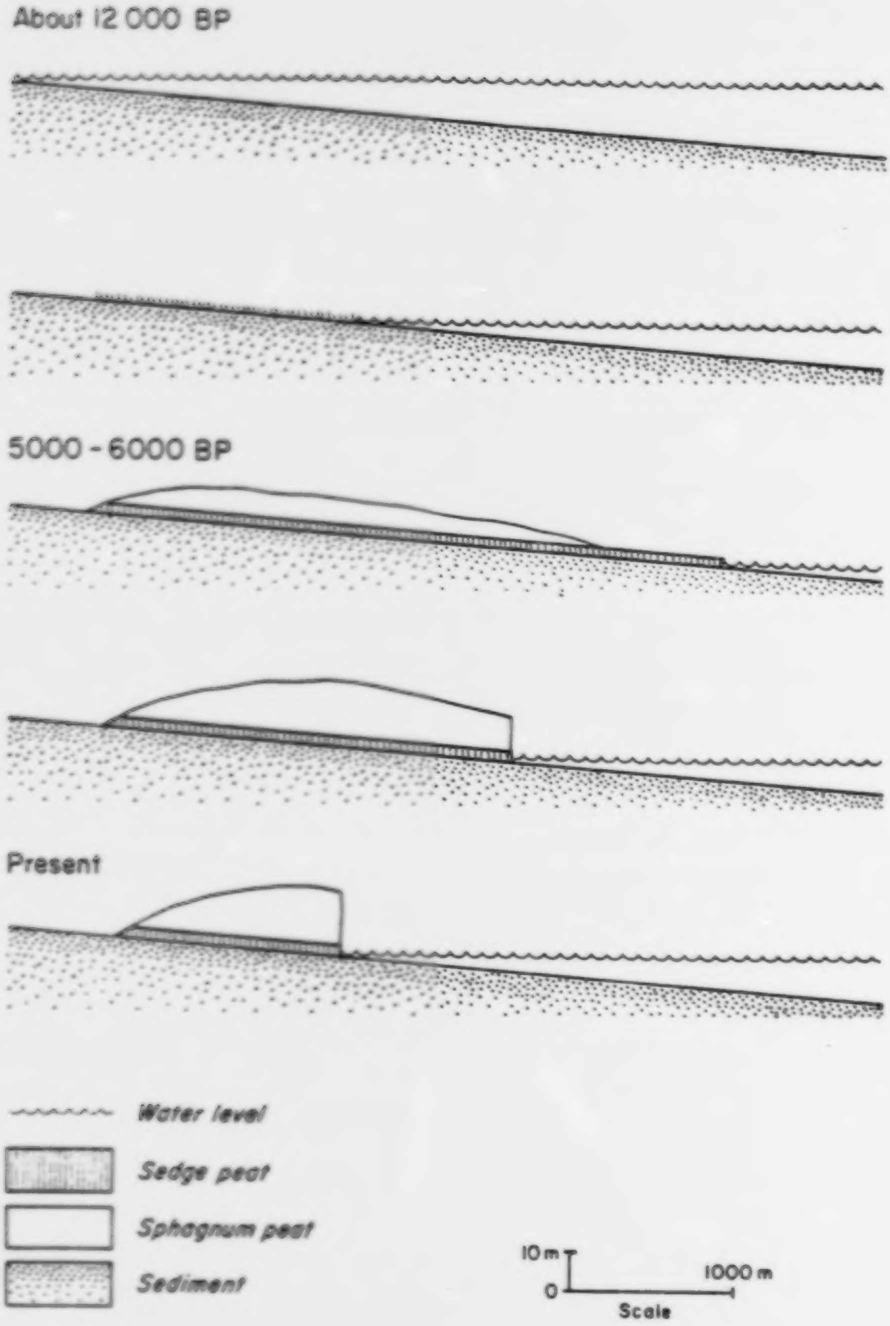
About 12 000 BP
5000 - 6000 BP
Present
Water level
Sedge peat
Sphagnum peat
Sediment
10 m
0
1000 m
Scale

FIGURE 16. Development scenario of peatlands in Region 1.

geological time scale. More than 20 peatlands have been partially eroded resulting in the formation of peat cliffs up to 4 m high. The base of some deposits is presently up to 2 m below sea level. These peat cliffs offer a unique opportunity to observe the stratigraphy of peatlands and they are a source of fascination for many peat scientists. Styles of slumping and erosion of these cliffs have been studied by Pajunen (1981).

Morphology and Vegetation: The ombrotrophic portion of a typical peatland covers 85-95% of the total surface area. Minerotrophic conditions are restricted mainly to narrow lagg zones (Figure 15). Coalesced domes are common in the larger peatland complexes. The surfaces of the domes and slopes are relatively dry and smooth with little to no hummock/hollow patterning. Coastal plateau peatlands, as described by Damman (1977) and Worley (1980), are locally present, but are uncommon.

Vegetation on the domes mainly consists of low shrubs (10-20 cm), lichens and mosses. Dwarf trees are scattered and rarely grow above shrub height. Typical vegetation is as follows:

Picea mariana

Gaylussacia dumosa

Chamaedaphne calyculata

Kalmia angustifolia

Empetrum nigrum

Rubus chamaemorus

Scirpus cespitosus

Cladonia rangiferina

Sphagnum fuscum

Sphagnum rubellum

with lesser amounts of:

Myrica gale

Kalmia polifolia

Ledum groenlandicum

Sarracenia purpurea

Spahgnum imbricatum

Pinus strobus

Betula pumila

Larix laricina

Eriophorum spissum

Sphagnum flavicomans

Scirpus cespitosus lawns are common around lakes and in the centres of the domes. Lichen is very common and often covers 50-60% of the dome surface. *Myrica gale* is present as widely scattered clumps of bushes. The occurrence of this supposedly minerotrophic plant in strongly ombrotrophic areas has not been fully explained, but may be related to the effects of extreme coastal climate.

Margins are narrow and are of limited extent. Scirpus cespitosus forms a major cover species with some Eriophorum spissum and a few scattered Carex species. Shrubs are sparse and scattered. The edge of each bog is distinct, and is often covered with tall (1 m) Rhododendron canadense, Myrica gale, and tall (5 m) Picea mariana and Larix laricina.

Lakes or surface ponds associated with these bogs are generally small and scattered. Streams and brooks related to the deposits are uncommon. Since the bases of many peatlands slope toward the coast, water often drains directly into the Gulf of St. Lawrence and the Northumberland Strait.

REGION 2

Region 2 is the largest of the seven peatland areas and covers most of the eastern portion of the Province. Peatlands in this region are mainly raised or domed bogs with open ombrotrophic conditions generally prevalent over most of the surface. Several subregions have been recognized (Figure 13).

A total of 461 peatlands were investigated in the region with 106 of these studied using the grid method (Table 12). These deposits had a total area of 51 684 ha, of which 23 480 ha (45%) had peat depths greater than 1 m. The average depth of peatlands in this region was 2.5 m. The total volume of peatlands in this region was 794 000 000 m^3. The volume of peatlands having depths greater than 1 m was 654 000 000 m^3; the surficial layer (H1 to H4) represented 59% of this volume. Sphagnum-dominated peats constituted 79% of the deposits studied and formed more than 94% of the surficial layer. A peat type of 100% Sphagnum constituted over 71% of the surficial layer.

Stratigraphy: The stratigraphic profile for a typical peat deposit consists of 2-4 m of poorly humified Sphagnum and shrubby-Sphagnum peats, which are underlain by 1-2 m of well-decomposed Carex-Sphagnum, Sphagnum-Carex, and Carex peats. Wood and shrubs are common constituents of the humified layers. Ooze commonly forms a 0.5-1.0 m basal layer beneath part or all of the peat layer.

The transition from poorly to well-humified peat often occurs in the same horizon as a change in the peat type from Sphagnum-dominated to Carex-dominated. This transition occurs gradually over a 0.5-1.0 m interval. Stumps and large pieces of wood are common in this layer.

A profile and plan view of a typical deposit in Region 2 is presented in Figure 17.

The bedrock in this region is gently dipping sandstones of Carboniferous age that is overlain by a morainal blanket of

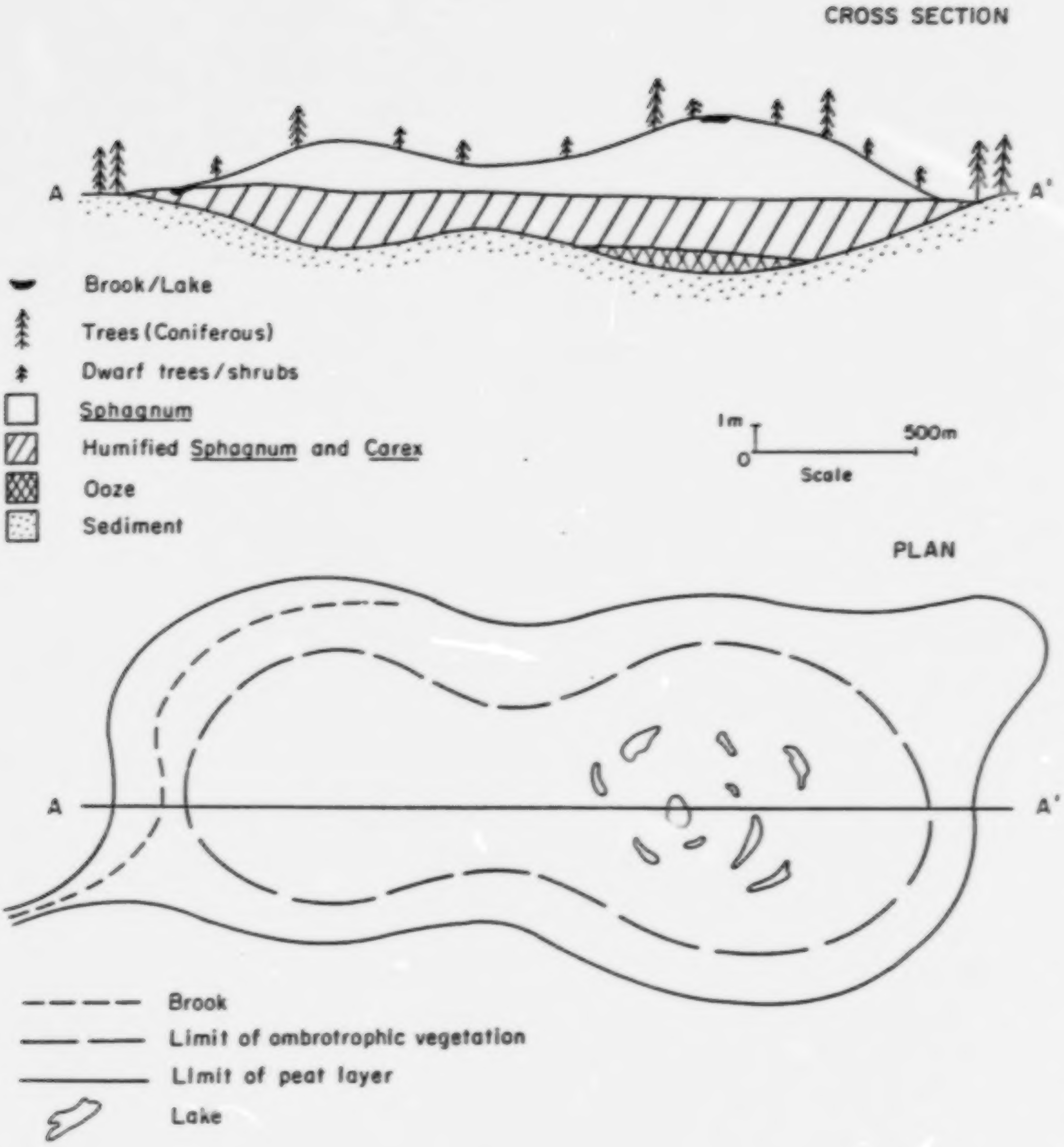
CROSS SECTION
A
A'
Brook/Lake
Trees (Coniferous)
Dwarf trees/shrubs
Sphagnum
Humified Sphagnum and Carex
Ooze
Sediment
1m
0
500m
Scale
PLAN
A
A'
Brook
Limit of ombrotrophic vegetation
Limit of peat layer
Lake

FIGURE 17. Typical style of occurrence of peatlands in Region 2.

mainly sandy till. Many peatlands in this region occur in bowl- or trough-shaped depressions in the glacial sediments, whereas the coastal bogs formed on a flat surface. These bogs probably developed as a result of the filling-in of small lakes and ponds (Korpijaakko 1976). The common occurrence of basal ooze layers supports this theory. Modes of origin differ somewhat between subregions and are discussed in greater detail in the section "Subregions".

Morphology and Vegetation: Ombrotrophic areas on a typical peatland generally cover 70-80% of the total area. However, a few peatlands have not progressed beyond the minerotrophic stage.

The domes and margin slopes are less pronounced relative to the steep margin slopes of the coastal (Region 1) bogs. The surfaces of the domes are often concentrically patterned with long hummock ridges alternating with wet hollows, the latter often forming shallow pools. Lakes having a concentric configuration are common on most domes.

Lagg and margin areas surrounding the domes are normally 50-100 m wide. Some laggs are extensive and form a major percentage of the peatland area. These areas are normally wet, and contain small brooks and streams. Many of the peatlands in the region are situated on divides between major drainage systems and are the source of many of the brooks and streams in the region.

Vegetation on the domes consists mainly of dwarf trees, shrubs, and mosses, including the following species:

Picea mariana

Larix laricina

Chamaedaphne calyculata

Kalmia angustifolia

Eriophorum spissum

Kalmia polifolia

Ledum groenlandicum

Sphagnum fuscum

Sphagnum rubellum

with lesser amounts of:

Pinus strobus

Cladonia arbuscula

Cladonia rangiferina

Dicranum spp.

Scirpus cespitosus

Polytrichum spp.

Rhyncospora alba

Cladopodiella fluitans

Sarracenia purpurea

Nuphar variegatum

Tree and shrub growth is more vigorous than on the coastal (Region 1) bogs. Dwarf trees and shrubs grow along the drier hummock ridges, whereas the hollows are relatively open with scattered shrubs, e.g., *Scirpus cespitosus*, and *Eriophorum spissum*. *Nuphar variegatum* is common in lakes.

The margin slope has vegetation similar to the dome. However, tree and shrub cover is often taller and much more dense, producing a ring or partial ring around the centre of the dome.

Margin areas are normally flat and wet with an abundance of herbaceous plants, including the following species:

Carex species

Scirpus cespitosus

Eriophorum angustifolium

Eriophorum chamissonis

Eriophorum virginicum

Sarracenia purpurea

Smilacina trifolia

Utricularia cornuta

Drosera rotundifolia

Vaccinium oxycoccus

Menyanthes trifoliata

Sphagnum magallanicum

Sphagnum papillosum

Sphagnum cuspidatum-coll.

Scheuchzeria palustris

with lesser amounts of:

Chamaedaphne calyculata

Kalmia polifolia

Andromeda glaucophylla

Orchidacae

Rhododendron canadense

Vaccinium macrocarpon

Larix laricina

The typically dense vegetation along bog edges comprises trees and tall shrubs. Alder (*Alnus rugosa*) is common and, at times, forms extensive swamps.

Subregions: Region 2 has been divided into four subregions based on differences in morphology, vegetation and, to a lesser extent, mode of origin.

Subregion 2A: This subregion comprises the northern and western portion of Region 2 (Figure 13). The peatlands are scattered throughout the area, with the exception of a small concentration in the north-central part of the region around Bartibog (subgroup 2A1, Figure 13).

The peatlands are ombrotrophic, but their surfaces are flat to slightly raised. The surfaces of many of the bogs have slopes in a single direction that reflect the slopes of the underlying mineral soil. Average peat depth and total area are less than those for the entire region (Table 13).

The peatlands in this subregion (2A) are immature compared to those in the remainder of Region 2. Several factors could account for this difference. Peat formation may have begun later in this subregion. Most of the subregion was not inunduated following deglaciation (Rampton *et al*. 1984) and, since it was farther from the sea, would have had a more continental climate. Therefore, a retardation in the time of initiation of peat formation and/or rate of peat growth (accumulation) may have resulted.

The group of peatlands in the Bartibog area (2A1, Figure 13) are situated on basal slopes that are commonly steep. They have generally thin (1-2 m) peat layers, and the highest proportion of Bryales peat in their basal layers of any group of peatlands in the Province. The Bryales content indicates very moist, minerotrophic conditions. Rampton *et al*. (1984) indicate the presence of a postglacial lake that strongly correlates with the location of this group of peatlands.

Subregion 2B: This subregion comprises peatlands in the central and southeastern portion of Region 2, as well as two small areas (2B1) in the northern portion of Region 2 and a small area near Moncton (2B2) (Figure 13). The peatlands are more concentrated within these areas.

The subregion is characterized by mature raised bogs that have developed in cup- to trough-shaped depressions. Basal ooze layers are common. Average depths and areas are greater in subregion 2B than in the rest of the region (Table 13).

The two small groups of peatlands in the northern part of the region (2B1, Figure 13) contain strongly domed bogs that have developed in sloping trough-shaped depressions. Basal humified layers are thinner than in the rest of the subregion. The apparent coastal influence on the growth of these peatlands may have given rise to the thick surficial layers. Surface morphology and vegetation in subgroup 2B1 parallel those in the rest of the subregion, but with minor coastal influences.

The small group in the southeastern portion of the region (2B2, Figure 13) contains domed bogs that support a number of plant species otherwise confined to the coastal bogs. *Scirpus cespitosus* lawns, *Rubus chamaemorus*, and *Empetrum nigrum* are common on the domes. Stratigraphy and morphology closely resemble those of the rest of the region.

TABLE 13.
COMPARISON OF SUBREGIONS IN REGION 2

Parameter	Subregion				
	2A	2B	2C	2D	TOTAL
No. of Deposits (grid/traverse)	114 (13/101)	237 (85/152)	92 (8/84)	18 (-/18)	461 (106/355)
Total Area (ha) (average area)	8 960 (79)	35 335 (149)	6 174 (67)	1 215 (68)	51 684 (112)
Area With Depth > 1 m (ha) (% of total area)	3 403 (38)	17 270 (49)	2 373 (38)	434 (36)	23 480 (45)
Average Depth (m)	1.8	2.6	1.8	2.2	2.5
Total Volume (m^3 x 1 000 000)	105	601	73	16	794
Volume of Portion with Depth > 1 m (m^3 x 1 000 000) (% Surficial/% Humified)	77 (50/50)	511 (62/38)	54 (60/40)	12 (38/62)	654 (59/41)
Peat Type (% of volume)					
Surficial Layer (% Sphagnum/% Carex)	93/7	95/5	96/4	97/3	94/6
Humified Layer (% Sphagnum/% Carex)	55/42	62/38	64/36	61/39	57/42
Overall Layer (% Sphagnum/% Carex)	75/24	84/16	83/17	74/26	79/20
Percentage of Surficial Layer With a Peat Type of 100% Sphagnum (average humification)	67 (2.7)	69 (2.9)	75 (2.6)	80 (2.7)	71 (2.8)

The peatlands of subregion 2B are the most mature of the region, and appear to be the oldest. The boundaries of the subregion strongly correspond to the probable maximum limit of marine incursion as described by Rampton et al. (1984). At that time, these peatlands would have been situated either on peninsulas of land surrounded by the sea, or in close proximity to the coast. This course of events suggests that peat formation began immediately following deglaciation in a moist coastal environment. The other peatlands of Region 2 at that time would have been farther inland (as described for subregion 2A), or under water, as would be the case for subregion 2C (described below). Thus, the apparent maturity of these peatlands may be due to a favorable postglacial environment that led to earlier initiation of peat formation and growth.

Subregion 2C: This subregion comprises the peatlands in the east-central area of Region 2 (Figure 13). The peatlands are scattered throughout the area.

The subregion is characterized by small, gently raised bogs. The bases of the bogs are flat to gently cupped. The average depth, the area, and the amount of doming are intermediate between subregions 2A and 2B (Table 13). Tree cover on the bogs, and the extent of surrounding forest paludification are slightly greater in subregion 2C than in the rest of the region.

The subregion is at a lower elevation than the probable maximum limit of marine incursion as proposed by Rampton et al. (1984). This suggests that peatland initiation and growth occurred at a later date, i.e., after emergence of the land, as compared to subregion 2B, where peatlands may have started developing immediately following deglaciation. The flatter bases of these bogs and the greater amount of forest paludification may be indicative of the reworking and smoothing of the land surface by wave or tidal action.

Subregion 2D: This subregion comprises the peatlands situated on the Tormentine peninsula in the extreme southeast of Region 2. The peatlands are scattered throughout the area.

The majority of the peatlands are small, poorly developed raised bogs, although some have not developed beyond the treed fen stage. Humified Carex peats are dominant, and underlying ooze layers are common. Tree cover on the bogs averages 70-80%. The shrub cover is normally dense. The border between peat and mineral soil is poorly defined with swampy areas extending along topographic depressions.

This area is covered with drumlinoid ridges and rolling to hummocky morainal deposits (Rampton et al. 1984), creating depressions in which peatland formation occurred.

Rampton *et al*. (1984) postulate that deglaciation (Tormentine Phase) and subsequent submergence occurred later in this area than in other areas along the southeast coast. This may, in part, account for the immaturity of these peatlands relative to other regions.

REGION 3

Region 3 comprises peatlands situated in the Tantramar area near Sackville (Figure 13). The peatlands are ombrotrophic raised bogs that merge with shallow marsh deposits. Large portions of the marshlands have been extensively ditched and drained for agricultural use. As well, Ducks Unlimited has constructed control dams in a number of areas for wildlife habitats.

Of the 11 peatlands investigated in the region, 6 were studied using the grid method. The total area investigated was 2097 ha, which includes some areas of shallow undrained marsh. In this region only, peatland boundaries were delineated at the transition from drained to undrained marsh, or where peat depth was less than 20 cm. The area where peat depth exceeded 1 m was 1298 ha (62% of the total area). The average depth of peatlands in the region was 2.3 m. Total volume was 35 000 000 m^3. A volume of 31 000 000 m^3 of peat is present where peat depth is in excess of 1 m. The surficial layer forms 90% of this volume. *Sphagnum*-dominated peats constituted 80% of the deposits studied and 85% of the surficial layer. A peat type of 100% *Sphagnum* constituted 61% of the surficial layer (Table 12).

Stratigraphy: A typical stratigraphic profile consists of 2-3 m of poorly humified *Sphagnum* peat overlying 0.2-0.5 m of well-humified shrubby- and woody-*Carex* peat. The shrub and wood content of the humified layer often exceeds 10%. Fragments of *Equisetum* and *Phragmites* are common in basal layers. The basal peats are commonly intermixed or interbedded with clays and fine silts. Thin peat layers underlying 1-2 m of clay are present in a few of the peatlands.

The bedrock in this region is Carboniferous sandstone. All of the peatlands are situated on marine sediments overlying the bedrock. These sediments, mostly clays and fine silts, reach 10-30 m in thickness. The deposition of the sediments occurred during and following the emergence of the land from the sea following deglaciation. The strong tidal action of the Bay of Fundy has enhanced this effect (Rampton *et al*. 1984).

The bases of the peatlands are very flat, suggesting that the initial peat formation commenced on the wet sediment flats immediately following emergence from the sea. The presence of thin peat layers (10-20 cm) underlying and interbedded with 0.1-2.0 m of clays and silts (e.g., Bog 887) indicates that periodic sedimentation occurred following the initiation of peat formation.

The basal peats in most peatlands contain *Equisetum* and *Phragmites* fragments and are high in wood, shrub, and *Carex* content, suggesting that the present-day bog arose from marsh and/or woody swamp origins.

Morphology and Vegetation: The surfaces of the peatlands are only slightly domed, rising 1-2 m above the surrounding margins. The domes are relatively wet, with patternless low rolling hummocks and hollows. Many of the hollows form wet "mud bottom" plant communities. Lakes are not common. Tree cover is stunted and scattered. The domes slope gradually to treed margins, which abruptly merge with marsh vegetation.

Vegetation on the domes consists of dwarf trees, shrubs and moss, and a number of hydrophilic herbaceous plants, including the following species.

Picea mariana

Chamaedaphne calyculata

Kalmia angustifolia

Ledum groenlandicum

Vaccinium oxycoccus

Rhyncospora alba

Utricularia cornuta

Sphagnum fuscum

Eriophorum spissum

Scirpus cespitosus

Cladonia arbuscula

Drosera rotundifolia

Sarracenia purpurea

Cladopodiella fluitans

Sphagnum rubellum

with lesser amounts of:

Larix laricina

Carex spp.

Rubus chamaemorus

Eriophorum angustifolium

Eriophorum virginicum

Empetrum nigrum

The dominant cover in the centres of the domes is a *Scirpus*-*Sphagnum rubellum* association. The *Scirpus* cover is not as dense as the lawns of the coastal peatlands. Wet mud-bottom communities of *Rhyncospora*-*Utricularia*-*Cladopodiella* are common, but constitute only a small percentage of total cover. The *Rubus* and *Empetrum* species normally associated with coastal regions are scattered and are not always present.

The marsh vegetation includes a wide variety of minerotrophic plants, dominated by grasses. Phragmites communis, Typha latifolia and Calamagrostis spp. are common.

The boundary between bog and marsh is normally covered by tall (5-10 m) trees including Picea mariana, Larix laricina, and often Acer rubum.

REGION 4

Region 4 covers a 15 km by 100 km band along the Bay of Fundy in southwestern New Brunswick (Figure 13), and includes the peatlands on Grand Manan and Campobello islands. In general, the peatlands are well developed raised ombrotrophic bogs. This region was first described by Ganong (1897), and appears to form an extension of the coastal raised bogs of Maine as described by Damman (1977) and Worley (1980, 1981). These bogs, averaging 56 ha in area, are small compared to the bogs in other regions of the Province.

Thirty-five peatlands, totalling 1966 ha, were investigated in the region with 1092 ha (56%) found to have peat depths greater than 1 m (Table 12). The average depth was 2.5 m. The total volume of peatland in the region was 36 000 000 m^3. The area having a depth greater than 1 m totalled 32 000 000 m^3; the surficial layer constituted 79% of this. Sphagnum-dominated peats constitute 97% of the deposits studied and they formed over 99% of the surficial layer. A peat type of 100% Sphagnum having an average humification of 2.9 formed more than 85% of the surficial layer.

Stratigraphy: The stratigraphic profile for a typical peat sequence consists of 2-4 m of poorly humified peat comprised predominantly of Sphagnum, which is underlain by 0.5-1.0 m of well-humified Sphagnum-Carex or Carex peats. Fine detrital ooze commonly forms a basal layer beneath part or all of the peat layer, but ooze is absent beneath the peat layers on Grand Manan and Campobello islands.

The surficial sphagnum peat has very little contamination by shrubs or wood; however, Scirpus cespitosus roots are frequently present in the surface 50 cm of peat.

The transition between poorly and well-humified peat occurs over a 20-30 cm interval, while the transition from peat to ooze is very abrupt.

The bedrock in this region is mainly Precambrian volcanics with small areas of Carboniferous sediments, i.e., east of Saint John. Unlike that of Region 1, bedrock topography in Region 4 often consists of steep slopes that are indicated by the irregular basal configurations of these bogs. Peat depths of more than 3 m are common within 10 m of the edge of the peatland.

The boundary of the region corresponds to the maximum limit of postglacial marine incursion and the limit of marine sedimentation (as delineated by Rampton *et al*. 1984).

The mode of origin for these peatlands was probably the filling in of small lakes or slow-moving streams, as indicated by the ooze layers. The lateral growth of these bogs is restricted by the topographic conditions, thus impeding the development of large peatland complexes as found on the east coast. As suggested by Korpijaakko (1976) for the east coast bogs, the cool, humid coastal climate was probably responsible for the rapid growth of the thick *Sphagnum* layers.

Morphology and Vegetation: These peatlands normally consist of one or several small domes. The ombrotrophic portions of a typical peatland cover 90-100% of the total surface area. Laggs and margins are narrow to nonexistent. The edge of the peatlands is well defined and regular, with little paludification of surrounding areas. Brooks and streams originating from or, more frequently, flowing through or alongside the bogs are common. Lakes and bog pools are rare.

The surface of the domes and slopes is uniform and smooth with little to no hummock/hollow patterning. They are relatively firm and can be traversed easily.

Species associations of surface vegetation are similar to those for Region 1 bogs. Slopes and domes show similar vegetation types, including the following species.

Picea mariana

Chamaedaphne calyculata

Kalmia angustifolia

Empetrum nigrum

Rubus chamaemorus

Sphagnum rubellum

Gaylussaccia dumosa

Cladonia rangiferina

Cladonia arbuscula

Scirpus cespitosus

Sphagnum fuscum

with lesser amounts of:

Larix laricina

Ledum groenlandicum

Pinus stobus

Eriophorum spissum

Carex spp.

The dominant cover type throughout this region is composed of nearly continuous "lawns" of Scirpus cespitosus, Cladonia spp., and Empetrum nigrum. Rubus chamaemorus and Gaylussaccia dumosa are not as dominant, but are very common. Sphagnum fuscum and Sphagnum rubellum are the most common components of the understorey.

The shrub layer is short (10-15 cm), often sparse, and consists mainly of Chamaedaphne calyculata and Kalmia angustifolia. Trees, when present, consist of widely scattered, stunted to shrub height Picea mariana, Larix laricina, and a few solitary Pinus strobus.

Vegetation along the border of the peatlands is taller and more vigorous, and is composed of similar species of trees and shrubs. Juniperis communis and Solidago uliginosa occur sporadically on the peatlands of Grand Manan and Campobello islands.

REGION 5

Region 5 covers a major portion of southwestern New Brunswick (Figure 13). In general, these peatlands are ombrotrophic bogs associated with slow-moving streams or rivers. A total of 161 peatlands were investigated in the region, 30 of which were investigated using the grid method (Table 12). A total area of 26 909 ha was investigated with 13 757 ha (51%) having peat depths in excess of 1 m. The average depth of peatlands in the region was 2.7 m. The total volume of the investigated peatlands was 465 000 000 m^3. The portion of the peatlands with depths greater than 1 m contained 398 000 000 m^3 of peat, 40% of which constituted the surficial layer. Sphagnum-dominated peats constitute 72% of the deposits studied and 91% of the surficial layers. A peat type of 100% Sphagnum constituted 65% of the surficial layer.

Stratigraphy: The stratigraphy in the peatlands of this region is not as uniform as that of previously described regions. The stratigraphic profiles can differ greatly within a single peatland (Figure 18), and each component (e.g., domes, margins, and zones bordering rivers) must be considered separately.

A typical stratigraphic profile for a domed area consists of 1-2 m of poorly humified Sphagnum and shrubby-Sphagnum peat overlying 2-3 m of well-humified Sphagnum, woody- and shrubby-Sphagnum, and woody- and shrubby-Carex peat. A 1-4 m layer of ooze and/or marl often underlies part or all of the peat layer.

The peat stratigraphy along river channels reflects the wet conditions. The peat largely consists of Carex, with interbedded clay or silt layers resulting from flooding. Ooze layers are common within the peat.

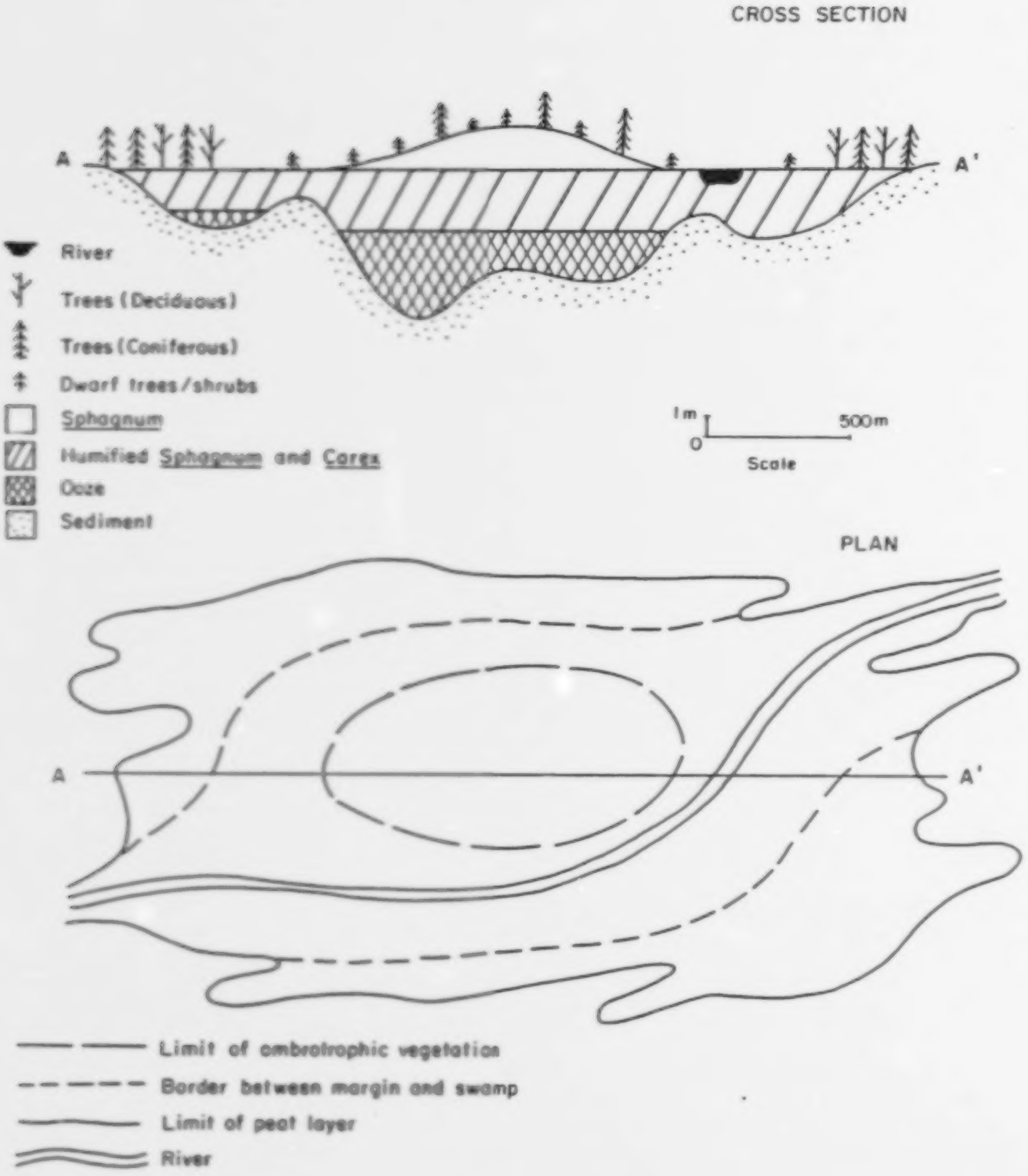
CROSS SECTION
A
A'
River
Trees (Deciduous)
Trees (Coniferous)
Dwarf trees/shrubs
Sphagnum
Humified Sphagnum and Carex
Ooze
Sediment
1m
0
500m
Scale
PLAN
A
A'
Limit of ombrotrophic vegetation
Border between margin and swamp
Limit of peat layer
River

FIGURE 18. Typical style of occurrence of peatlands in Region 5.

Margins, laggs, and swampy areas surrounding the main body of the peatlands have little to no surficial layer and contain peats mainly composed of well-humified woody- and shrubby-Sphagnum and Carex.

The proportion of humified peats to surficial peats in these peatlands is larger than in most other regions of the Province. Sphagnum peat makes up a large portion of the humified layer, with shrubs and wood remnants often forming 20% of the volume. Poorly humified peats are restricted to domed areas. Shrubby layers are common.

Thick ooze layers are common beneath large areas of the peatlands. These layers often show a gradation from coarse brown ooze near the boundary with the peat, through to fine light brown and grey, light green and, at times, a deep green jelly-like substance at the base of the deposit. Marl deposits beneath the peat layers are common in peatlands in the northern part of the region. A typical profile is presented in the northern part of the region. A typical profile is presented in Figure 18.

The bedrock throughout this region is largely Silurian and Devonian sedimentary and intrusive rocks. Bedrock topography consists of steep slopes, which form ridges and valleys with many river and lake systems. Most of the peatlands in this region are confined to these "valleys". The general configuration of the peatlands is southeast-northwest, a trend that corresponds to major glaciation directions. An irregular base, often with mineral ridges parallel to the long axis of the peatland, is a common feature.

The mode of origin for these peatlands was probably the gradual in-filling of relatively deep (2-5 m) lakes and slow-moving brooks and rivers, as reflected by the thick layers of ooze.

Morphology and Vegetation: The majority of the peatlands in this region are divided by rivers and streams, although a few border on lakes. The surface of the peatlands rarely rises more than a few metres above the level of the water body, with the exception of a few domed bogs. Domed areas are relatively small with gentle slopes (Figure 18).

Ombrotrophic vegetation covers 30-60% of a typical peatland. Margin areas are often extensive and form much of the total area. Swamps commonly surround domes and margins and often extend many kilometres along the river systems.

Vegetation on these peatlands includes a wide variety of species, with each part of the peatland supporting different plant associations.

Areas along river and lake boundaries are covered with sedges and grasses with very few woody plants. Margin areas (between rivers and domes, and mineral soil and domes) contain a wide variety of woody plants, including the following species.

Chamaedaphne calyculata

Kalmia angustifolia

Kalmia polifolia

Ledum groenlandicum

Salix spp.

Rhododendron canadense

Myrica gale

Spiraea alba

Sphagnum spp.

Carex spp. and minerotrophic herbaceous plants such as *Iris versicolor*, *Menyanthes trifoliata*, and some *Eriophorum* species are common along wet areas bordering swamps and mineral soils.

Vegetation on the domes is typical of central raised bogs, and includes the following species.

Picea mariana

Larix laricina

Kalmia angustifolia

Kalmia polifolia

Ledum groenlandicum

Chamaedaphne calyculata

Cladonian boyri

Cladonia rangiferina

Sphagnum spp.

with lessor amounts of:

Pinus strobus

Polytrichum spp.

Dicranum spp.

Most domes are relatively dry with thick shrub and lichen growth. Tree cover if often dense and on average covers more than 50% of the domed areas.

Swampy areas are normally very wet, with a dense cover of deciduous and coniferous trees, including the following species.

Picea mariana

Thuja occidentalis

Larix laricina

Acer rubrum

Betula populifolia

Betula pumila

Alnus rugusa

Nemopanthus mucronatus

Rhododendron canadense

Salix spp.

Herbaceous plants include Carex spp., grasses, and orchids but they are not dominant vegetation.

Subregions: These riverside peatlands display the widest range of features of any area in the Province. Domes, margins, laggs, swamps, and floodplains are common features of most.

Two subregions (5A and 5B) within the southwest region (Figure 13), contain peatlands that conform to the general description above, yet show strong characteristics in certain features.

Subregion 5A: The northern subregion contains peatlands with little to no doming, and some are completely minerotrophic. Peat stratigraphy is similar to that for the region (Figure 18); however, the surficial layer is very thin to absent. Marl deposits beneath peat layers are present in the peatlands in the northern area of this subregion, near Hartland. Vegetation on these peatlands display more minerotrophic tendencies, with Betula spp., Salix spp., Spiraea spp., and Myrica gale commonly found over much of the areas.

A small unsurveyed peatland at the north end of this subregion, a few kilometres south of Grand Falls, is worthy of note. The deposit, known as the Kirkpatrick or Costigan bog, was used for small-scale peat production for many years. Ditching of the 5-10 acre site had been completed in the standard fashion but the method of harvesting was somewhat unique. When the surface peat layer was dry, it was raked by hand into piles, then forked onto a series of conveyer belts for transport to the edge of the deposit. This method has been described in an Energy Mines and Resources (Mines Branch) report by T.E. Tibbetts dated about 1965.

The deposit gained scientific importance when it and a lake in the centre of the peatland were drained. This increased the slope of a small stream that discharged into the lake, causing it to erode the peat layer. As the eroding channel progressed upstream, it exposed what can best be described as a paleo-beaver-dam. The dam was about 1 m high and was covered by more than 1 m of peat. If a rate of peat accumulation of 1 mm per year is assumed then the overlying metre of peat represents 1000 years.

The erosion channel also resulted in a drying of the peat layer for a few metres on either side. A burrow in this dry peat layer had apparently been used as a den by a black bear.

Subregion 5B: The central subregion contains large raised peatlands. Peat stratigraphy is similar to that described above, but the peat layers are thicker than in the rest of the region (Figure 18). The domes have steep slopes and cover 60-80% of the surface of a typical peatland area.

Subregion 5C: The peatlands in this subregion display characteristics intermediate between subregions 2A and 2B, and closely parallel those described for the region (Figure 18).

The peatlands along the southern portion of this subregion show some evidence of coastal influence on the surface vegetation. Lichen and Scirpus cespitosus are common on the domes, and tree cover is shorter and less dense than in the rest of the region.

Table 14 provides a numeric comparison of these subregions.

REGION 6

Region 6, which covers a large part of northwestern New Brunswick, is characterized by scattered peatland occurrences (Figure 13). Most of the peatlands in the region are small raised bogs.

A total of 33 peatlands were investigated in the region. The total area was 2514 ha with 1498 ha (60%) found to have peat depths in excess of 1 m (Table 14). The average peat depth was 2.5 m. The total volume of peatlands in the region was 45 000 000 m^3. The area with peat depth in excess of 1 m contained a peat volume of 40 000 000 m^3, of which 52% was surficial layer. Sphagnum-dominated peats constituted 73% of the deposits studied and 94% of the surficial layer. A peat type of 100% Sphagnum constituted 62% of the surficial layer.

Stratigraphy: Peat stratigraphy in this region is similar to that of Region 2. A typical stratigraphic profile consists of 1-3 m of poorly humified Sphagnum peat overlying 1-2 m of moderately and well humified Carex-Sphagnum, Sphagnum-Carex, and Carex peats. Ooze forms a thin (0.5-1.0 m) basal layer in a small number of bogs.

Shrubs often constitute 10-20% of the total peat layer. Scirpus cespitosus roots are common in the upper metre of Sphagnum peats.

The bedrock in this region is composed of Silurian and Ordovician sediments, and Devonian intrusives. Bedrock topography is accentuated by ridges and mountains. The mode of origin for these peatlands was probably the gradual in-filling of shallow brooks and streams, with lateral paludification of forest lands.

The scarcity and small size of peatlands in this region is probably due to topographic and climatic restrictions. Steep slopes, ridges, and valleys limit the areas where slowly moving or standing water will persist and allow peat-forming plants to

TABLE 14.
COMPARISON OF SUBREGIONS IN REGION 5

	Subregion			
Parameter	5A	5B	5C	TOTAL
No. of Deposits (grid/traverse)	32 (6/26)	36 (14/22)	93 (10/83)	817 (30/603)
Total Area (ha) (average area)	6 086 (190)	8 398 (233)	12 425 (134)	26 909 (167)
Area With Depth > 1 m (ha) (% of total area)	3 621 (59)	4 276 (51)	5 860 (47)	13 757 (51)
Average Depth (m)	2.4	3.0	2.7	2.7
Total Volume (000 000 m^3)	103	155	207	465
Volume of Portion with Depth >1 m (000 000 m^3) (% Surficial/% Humified)	91 (28/72)	134 34/76)	173 (46/54)	398 (40/60)
Peat Type (% of volume)				
Surficial Layer (% Sphagnum/% Carex)	83/17	92/8	93/7	91/9
Humified Layer (% Sphagnum/% Carex)	47/52	61/39	68/32	60/40
Overall Layer (% Sphagnum/% Carex)	57/43	74/26	80/20	72/28
Percentage of Surficial Layer With a Peat Type of 100% Sphagnum (average humification)	27 (2.7)	75 (3.2)	71 (3.2)	65 (3.2)

invade. The climate in the northwestern part of the Province is one of relatively short summers and cold winters, restricting the development time for peatland growth.

The majority, and largest, of the peatlands are located in the southern portion of this zone. The remaining bogs are small and widely scattered. A number of these smaller bogs have not developed raised domes, although most are ombrotrophic. A peatland in the Juniper area (No. 846) is somewhat anomalous, in that it is a slope bog. Tree and shrub growth is taller and thicker than in the south and comprises similar species, plus a few more minerotrophic plants in shallow peat areas.

Morphology and Vegetation: The dome(s) of a typical peatland constitutes 80-90% of the surface area. Margins are narrow. The edges of the peatlands are well defined, with some peatlands extending along river systems.

The domes are not as pronounced as those of the central and coastal regions. The surfaces of the domes are concentrically patterned with hummocks and hollows and many small lakes.

All of the peatlands are associated with brooks or large lakes, situated on the surface or along the borders.

Vegetation on the domes consists of the following species.

Picea mariana

Larix laricina

Chamaedaphne calyculata

Kalmia angustifolia

Kalmia polifolia

Ledum groenlandicum

Cladonia rangiferina

Scirpus cespitosus

Eriophorum spissum

Rhyncospora alba

Sarracenia purpurea

Hummock ridges are covered with dwarf *Picea mariana*, *Larix laricina*, shrubs, and lichen, while the hollows and wetter areas around lakes are covered with *Scirpus cespitosus*, *Eriophorum spissum*, and lesser amounts of *Rhyncospora alba* and *Sarracenia purpurea*.

The margins are normally wet and contain the following plant species.

Carex spp.

Eriophorum spissum

Eriophorum angustifolium

Sarracenia purpurea

Drosera rotundifolia

Similacina trifolia

Andromeda glaucophylla

Vaccinium oxycoccus

REGION 7

Region 7 consists of swamps and marshes situated on floodplains along the Saint John and Oromocto rivers (Figure 13). A total of 17 peatlands were investigated, all by the traverse method. These peatlands had a total area of 12 286 ha with 3096 ha (25%) having peat depths over 1 m (Table 14). Average depth was found to be 1.6 m. The total volume of the investigated peatlands was 117 000 000 m^3. The portion with peat depth in excess of 1 m contained a peat volume of 71 000 000 m^3, of which 29% is classified as surficial layer. *Sphagnum*-dominated peats constituted only 19% of the investigated deposits and 33% of the surficial layer. A peat type of 100% *Sphagnum* constituted only 5% of the surficial layer.

Stratigraphy: The peat consists of well-humified herbaceous materials with intermixed and interbedded silts and clays. Fragments of horsetail and fern are common throughout the layer. Peat depths are irregular, ranging from a few centimetres to 5 m. Mineral content is frequently high, probably due to periodic flooding of the boundary between peat and underlying mineral soil is often indistinct.

Rampton *et al*. (1984) indicate the presence of a large water body (Inland Sea Acadia), that persisted in this area for a period of time following deglaciation. This may account for the vast amounts of clays and silts underlying the marshes.

Peat formation probably was initiated by the invasion of water-tolerant plants on the wet sediment flats. The frequent inundation of the areas by the waters of the Saint John and Oromocto rivers has resulted in peat and sediment admixtures, and has restricted the range of plant species able to survive such conditions.

Morphology and Vegetation: The marshes are generally flat with an abundance of minerotrophic vegetation. The height, density and variety of vegetation increases with increasing distance from the water bodies. Herbaceous plants form the dominant vegetation, including the following species.

Osmunda regalis

Menyanthes trifoliata

Equisetum spp.

Sagitarria spp.

Eleocharis spp.

Carex spp.

Grasses

Juncus spp.

Iris versicolor

Acorus calamus

Woody plants on the marshes include the following species.

- *Myrica gale*
- *Spiraea alba*
- *Spiraea tomentosa*
- *Alnus rugosa*
- *Salix* spp.
- *Nemopanthus mucronatus*
- *Chamaedaphne calyculata*
- *Rosa nitida*

The border of marsh and mineral soil contains an abundance of deciduous trees, such as *Cornus stolonifera*, *Fraxinus* spp., *Ulmus* spp., *Acer* spp., etc.

COMPARISON OF REGIONS

To facilitate a summary and comparison of the seven regions, several numeric parameters have been compiled in Table 12. These parameters have been selected to provide an overview of many of the factors discussed in the foregoing sections. More detailed comparisons of each region can be made by the use of data similar to that displayed in Tables 7 to 11. Table 12 represents a very condensed version of such data.

Many of the parameters are straight forward and do not warrant discussion. However, the ratio of surficial (H1-4) layer to humified (H5-10) layer provides a quick evaluation of horticultural versus fuel potential of a particular region. For example, Regions 1, 2 and 4 have the highest ratios. In contrast, Regions 5 and 7 have a dominance of humified peats. Region 5 has the greatest potential for fuel utilization in the Province. Shallow depths are one of the limitations to a similar potential in Region 7. The very high percentage of *Sphagnum*-dominated peats in the surficial layer of all regions, except Region 7, indicates that where the surficial layer is present it commonly has potential for horticultural use. The comparison of this layer in all regions indicated that the portion of the surficial layer composed of 100% *Sphagnum* was greatest in Region 4. This peat type is commonly considered to be of highest quality for most horticultural purposes.

These considerations indicate that Region 4 has the highest potential for horticultural peat production from a quality point of view. However, the relatively small areas of most of the deposits would restrict any development to a relatively small scale. Regions 1, 2, 3, 5, and 6 all have similar numeric characteristics with regard to quality. Size considerations favour the larger deposits found in Region 1, but many of these deposits are currently leased. Region 2 has a smaller average peatland size, but has numerous large deposits with good quality peat, particularly in subregion 2B. However, many of these deposits are long distances from access roads. Despite the low ratio of surficial to humified peat in Region 5, several deposits have thick surficial layers with good quality horticultural peats.

While these numeric comparisons are useful in evaluations of regions, it is difficult to define potential for specific purposes without having detailed data on the types and quality of peat required. Thus, a region may have limited potential for a specific utilization, and an individual deposit may not conform completely to the regional picture. For this reason, it is suggested that readers who wish information on deposits having a particular size and peat quality make a specific request for such data. The computerized data base permits rapid retrieval of information for such requests.

USE AND MANAGEMENT OF THE RESOURCE

THE INVENTORY DATA AS A MANAGEMENT TOOL

The survey methods used in the inventory of the peatlands of New Brunswick provided three-dimensional, multi-use information at a relatively low cost. The compiled information can be used: to assess the potential for extraction of peat for horticultural or fuel purposes; to select sites for "in situ" uses such as agriculture, forestry, wildlife habitats, and conservation; for engineering studies; and for research. Much of the discussion presented in this section of the report represents a compilation of concepts from Keys (1980), Keys and Gemmell (1984), Keys et al. (1981), Keys, Gemmell and Henderson (1982), and Keys, Klemetti and Henderson (1982).

With regard to peat extraction, the quantities identified must be regarded as "in situ" or resource values. As with any geologic deposit, the mineable reserves must be determined to fully evaluate the potential. Reliable estimates can best be made on each individual deposit rather than on a regional basis. A peat depth of 1 m is commonly considered as a minimum for peat extraction. The format of the inventory data facilitates the assessment of this factor. Other factors can also be assessed to varying degrees: unmineable basal layers (determined by high ash contents or irregular fluctuations in the underlying sediment); unsuitable peat qualities; drainage difficulties; high density of surface tree cover; and stumps or woody layers in the peat. Factors that represent potential limitations to development have been discussed in the Summary Descriptions of the individual peatlands.

There has been no attempt made to estimate recoverable reserves. In part, this is because economics play a large role in the determination of what is considered recoverable. Since the economics can be anticipated to change with time, it was decided that a present-day determination could have limited future applicability. Furthermore, recoverable reserves to some extent will depend on the mining method, as well as the type of peat required for the product end use. Estimation of recoverable quantities in units such as tonnes of fuel peat, or bales of horticultural peat is also problematic because of the numerous volume alterations that occur in the course of the mining. The determination of "in situ" dry density (see Klemetti and Keys 1983; Keys 1984), which formed part of the inventory, provides the basic data for development of a method to convert the measured "in situ" quantities to estimated "plant-door" amounts.

There has been a concerted attempt to suggest potential uses for individual deposits on the basis of the surveyed resource. Poorly decomposed peats (H1-4) composed only of *Sphagnum* have been considered to have the highest potential for horticultural usage. Other peat types and qualities are mined and sold on the horticultural market in other locations, but a poorly decomposed *Sphagnum* peat traditionally has been the principal type harvested in New Brunswick. This peat is generally considered to be of high quality for most applications, although certain specialized users may prefer other types. A well-decomposed (H5-10) peat has traditionally been rated as fuel quality. Recent studies (Keys 1984) indicate that the calorific value range, between H1 and H10, is relatively small on a weight basis but much greater on a volume basis. The low dry density of poorly decomposed peats results in a substantial increase in the quantities that must be recovered to produce the equivalent amount of heat that would be recovered from the higher density, well-decomposed peats.

While an assessment of resource potential was made for each deposit, an overall potential for development based on other factors was not assessed in detail. Climate, especially with regard to the number of days suitable for peat harvesting, must be considered. Cultural parameters such as land purchase or leasing arrangements, road and electricity access, manpower availability, and transportation advantages to the market must also be evaluated. For fuel peat, a distance of 100 km is considered the limit for economic transportation. Horticultural peat has a much higher market value and can be transported over longer distances.

The inventory data were collected at an average density of 1 site every 6.4 ha with about 1 site every 4 ha on peatlands studied by the grid method. This level of detail represents a significant advance in the knowledge of the Province's resource and is considered suitable for comparison and evaluation of deposits. However, a field investigation of much higher density would commonly be conducted as part of a feasibility study prior to commencement of site preparation.

In such a preproduction inventory, a full assessment of the peat quality, depth, and elevation is often completed on 100 m centres (i.e., 1 site per hectare) and a determination of peat depth and elevation made on 50 m centres. This preproduction inventory allows the preparation of a comprehensive drainage layout. As well, the more detailed assessment of peat quality fills "data gaps" in previous work and further assesses the suitability of the deposit for the intended use prior to major investments in site preparation or equipment. If the preproduction inventory indicates previously unforeseen difficulties, an alternate deposit can be selected, but if all conditions are acceptable, site preparation can be undertaken. This preproduction survey is a common practice for European producers but is less common in North America. It perhaps warrants greater consideration here in view of the present investment costs required to commence peat mining.

The inventory data also permits the evaluation of numerous "in situ" uses of peatlands, including agriculture, forestry, and conservation/recreation. Site selection for these purposes is dependent on many factors in addition to peat quantities and quality. However, selection criteria for these uses either are poorly developed or have undergone limited testing. In this report, recommended use for specific peatlands for these purposes often was made on the basis of an absence of potential for peat extraction. This thinking was based on the assumption that minerotrophic peatlands have higher nutrient contents and thus are best suited for agricultural or forestry purposes. Depths of 1-2 m were the maximum normally considered. However, recently developed site selection criteria for agricultural use of peatlands (Parent 1980) indicate that peatlands used for agriculture commonly subside and decompose at a rate of up to 2-3 cm per year. Because of this, it is generally preferred to have peat depths of at least 1-2 m to ensure operation for a sufficient period of time to amortize initial investment cost. As well, climatic factors have a major influence on the selection of peatlands for agricultural uses. These factors vary with different regions of the Province and the requirements are dependent on the type of crop.

Peatlands used for agriculture (also called organic soils) and forestry require suitable drainage possibilities. Peatland development for forestry and agricultural applications are somewhat specialized and have been reviewed in other publications (Paivanen and Wells 1978; Jasmin et al. 1977).

Recreational/conservational uses maintain the peatland in its natural state or, in the case of artificial wildlife habitats, alter the water table by the use of control structures on drainage outlets. Again site selection is specialized and numerous factors must be considered.

Evaluation models such as those used by Reid _et_ _al_. (1980) in Ontario and Larson (1976) in Massachusetts can be used to categorize and rank wetlands in relation to a variety of factors. These models, however, hava a major disadvantage in that they consider peatlands only on a two-dimensional basis. No allowance is made for the value of the third dimension - the actual peat resource. Effective long-term management will require development of an integrated evaluation system that addresses the value of the peatland for a range of utilizations.

Such a system would require consultation with other Department of Natural Resources branches, such as Land Management and Fish and Wildlife, to ensure that the concerns of various sectors are included in the evaluation. This would reduce the possibility that deposits having substantial depths of exploitable peat are developed and flooded for waterfowl habitat as has occurred in the past. Similarly, peatlands that have rare plant species or unique characteristics should be reserved from development for peat extraction.

The detailed knowledge of the resource provided by the inventory project places New Brunswick in a unique position for management of the peatlands. With the present knowledge of the nature and extent of the resource, peatland utilization can be planned to optimize the economic and social benefits to the Province.

The existing legislation incorporates the necessary mechanism for the implementation of a comprehensive management plan for Crown peatlands. Such a plan can minimize conflict between current and proposed uses of peatlands while ensuring that the resource makes the maximum contribution to the long term benefit of the Province.

OWNERSHIP AND LEASING OF PEATLANDS

Peat is classed as a surficial deposit in New Brunswick under the provisions of the _Quarriable Substances Act_. As such, ownership of the deposits rests with the landowner. However, few peatlands were included in the original applications for land grants. Hence, ownership of over 65% of the total area of New Brunswick peatlands remain with the Province under the administration of the Department of Natural Resources.

The thirteen companies presently producing horticultural peat products in New Brunswick lease all or parts of their production areas from the Province. An acreage rental and a royalty on production is paid annually. The regulations governing leasing of peatlands were recently revised to ensure optimum management of the resource (Department of Natural Resources 1979). The objectives of the leasing policy are to maximize the contribution of the resource to the economic development of the Province and to encourage development in a manner that does not jeopardize future utilization or rehabilitation of the peatlands.

Before a Peat Moss Lease can be obtained, the applicant requires a Peatland Exploration Licence. This licence reserves an area of 800 ha to allow the applicant sufficient time to ascertain that the quality and amount of peat in the proposed lease is suitable for the intended use. The exploration licence is renewable annually to a maximum of three years provided all requirements are met. Approval of a Peatland Exploration Licence is granted only if the applicant: (1) has no other licence in effect; (2) can demonstrate that the proposed development will not adversely affect the future availability of peat for an existing leaseholder; and (3) can market the product without jeopardizing the existing industry in the Province.

After determining the portion of the exploration area best suited for the proposed use, the applicant may then apply for a peat lease of 250 ha. This application must include a drainage plan, a harvesting and future expansion plan, and an abandonment plan. If all requirements are met, a lease can be granted for a period of ten years. Renewal for further ten-year periods is possible if certain minimum production requirements and other conditions are met. A security deposit to ensure compliance with production and abandonment plans is required.

The size and term of leases is designed to avoid the holding and underutilization of large tracts of peatlands for extended periods. However, to ensure the opportunity for expansion, the holder of a lease may negotiate a time-limited option on an adjacent buffer zone.

PRESENT UTILIZATION

New Brunswick currently ranks second (behind Québec) in the production of horticultural peat; it accounts for about 25% of the total Canadian production. Some of the existing horticultural peat developments have operated since 1942. The mining of peat on a commercial scale has been reported as early as 1894 (Ganong 1897). Located at Spruce Lake, near Saint John, the operation involved the mechanical harvesting, artificial drying, and baling of the peat within a three-hour time frame. The peat was marketed in the United States for use as animal litter. The plant was destroyed by fire in 1895. Peat production at other locations in southern New Brunswick is also believed to have occurred. Present day operations are located mainly in the northeastern and eastern parts of the Province. The early markets for peat as animal litter have disappeared and the majority of the peat now sold is in an unprocessed form as a soil conditioner. Several companies, however, add fertilizer and/or other materials to the peat to form soil (or soilless) mixes or potting soils. The manufacture of pressed peat pots is also carried out in the Province.

Hand-cutting and stacking of blocks of peat was the technique of peat harvesting used in the 1940s, but this was gradually replaced by mechanical block cutting. However, turning of the stacks for drying, as well as loading of wagons for transport to the bagging facility still was done manually in most cases. The increasing cost of the labour associated with this block-cutting method was one of the reasons that the vacuum harvester became popular in the 1960s. Presently, all of the companies harvesting peat in the Province use the vacuum method. Three companies, however, obtain a portion of their production from the block-cut method because the large blocks permit the production of a coarser (i.e., larger fiber size) peat. One company also uses the ridge peat method.

In all of these methods, similar techniques of site preparation are used. Drainage is one of the most important considerations. A peatland in its natural state will contain in excess of 90% moisture (wet weight basis), i.e., 9 parts water to 1 part peat by weight. The use of a properly designed and maintained drainage system can reduce this to 80-85% moisture (4-6 parts water to 1 part peat).

Using the results of a detailed preproduction inventory, a drainage plan is made. The drainage layout should take into account: the mining method; the slope and shape of the peatland; field length; access and haulage roads; suitable locations for stockpiles, service buildings, and processing plants; peat depths; and drainage outlets.

Perimeter ditches are normally the first to be excavated to ensure a good flow away from the peatland. Primary ditches at widely spaced intervals are then excavated to remove open water and increase the bearing capacity of the peatlands. Secondary or production ditches are placed at closely spaced intervals. Various types of equipment, with very low ground pressure, are used for this phase. A spacing of 20 m is considered preferable but this can be varied somewhat to correspond to equipment size. For example, a 10 m harrow used on a 20 m field requires only one pass in each direction. If a 6 m harrow is to be used, a 24 m ditch spacing would allow two passes to complete the operation.

In some cases, surface clearing activities commence prior to the placing of secondary ditches. Large trees can be cut and the stumps removed. In some horticultural operations, on deposits with few trees, brush cutters are used to remove low shrubs and the surface mat is rotovated and allowed to decompose prior to the harvesting phase. In other operations, screw levellers are used to strip the surface mat for subsequent removal from the peatland. Screw levellers are also used to profile or "crown" the production fields to aid in surface runoff into the ditches. Specialized equipment can also be used to remove stumps to a depth of about 50 cm.

At the time of writing, 22 Crown peatlands were leased for the production of horticultural peat. Sixteen companies hold the 19 leases. Production fields totalled approximately 2200 ha of Crown land and 350 ha of private land, which constitutes less than 25% of the total area under lease. However, not all of the leased areas are considered suitable for peat extraction. Annual production from these operations currently averages about 4 000 000 standard bales (6 cu. ft.) having a value of over $12 000 000.

The following table summarizes Statistics Canada information on the destination of shipments by New Brunswick peat producers in 1981:

Domestic Market	Quantity (tonnes)
Nova Scotia	500
New Brunswick	2 500
Ontario	18 200
Other Provinces	9 800

Export Market	Quantity (tonnes)
United States	43 400
Japan	3 300
Europe	5 700
Asia	100
Other	1 500

The figures given for Ontario may be somewhat misleading in that several companies maintain large transshipment facilities in Ontario from which the stockpiled peat ultimately is exported to the United States market.

Current agricultural utilization includes one peatland used for vegetable production and others under consideration for development. A portion of Bog 213 at St. Charles, near Richibucto, is used for vegetable production. Wild rice has also been produced from peatlands along the Oromocto River, south of Fredericton.

Recreational/conservational peatlands cover a total area of 9500 ha. Some 4500 ha within Kouchibouguac National Park are protected from development. Parks Canada has a nature study area, including a 1 km boardwalk and a viewing tower, on one of these peatlands (Kelly's Bog). Other peatlands are being considered for protection as ecological reserves. Habitat management for waterfowl is practised extensively in the Province by Ducks Unlimited. They currently have developed over 5000 ha of wetlands for this purpose. At least 24 of the investigated peatlands are included in this total. Thus, this constitutes the largest single use of peatlands in the Province.

The mining of fuel peat and peatland forestry are not currently carried out in the Province.

POTENTIAL UTILIZATION

Horticultural Peat: In addition to the 22 peatlands currently leased, 65 deposits have been identified as having high potential for the extraction of horticultural peat. These deposits total 19 700 ha; each has a minimum of 150 ha (375 acres) where peat depth exceeds 1 m. The volume of poorly decomposed peat in each deposit is in excess of 2 500 000 m^3 and could provide a minimum of 30 years supply of peat for an operation producing 300 000 standard bales annually by conventional techniques. Over 95% of the poorly decomposed peats in these deposits are Sphagnum-dominated. Sixty-four per cent are composed of only Sphagnum, while an additional 20% are Sphagnum with shrub content not in excess of 10%. Many of the 65 deposits are well in excess of the minimum criteria used for selection. In addition, there are numerous other deposits with suitable peat reserves. These deposits did not meet the selection criteria individually, but are often in close proximity to other deposits and offer possibilities for joint development.

While the majority of the selected deposits are in the eastern part of the Province, several are located in the central and southwestern regions. Most are strongly domed bogs with good drainage possibilities and low density of tree cover. Road access and electricity availability varies considerably with individual deposits. Some of these deposits are currently reserved under peatland exploration licences.

The numerous deposits containing excellent quality sphagnum peat indicates that the New Brunswick peat resource has a high potential for continued extraction of horticultural peat. Excluding those peatlands currently under lease, the identified deposits could potentially supply 1 500 000 000 bales of horticultural peat. At the current rate of utilization, this industry could be supported for about 400 years.

Fuel Purposes: Forty-six deposits have been identified as having a primary potential for extraction of fuel peat. These deposits total over 11 200 ha; each has at least 100 ha where peat depth exceeds 1 m. The volume of peat in these deposits totals more than 210 000 000 m^3. While about 30% of this volume is poorly decomposed peat, it generally occurs as a thin surface layer (averaging 1 m), and has little potential for horticultural use. The majority of these deposits are located in southwestern New Brunswick, but there are a few in the central and southeastern regions, and one deposit (currently leased) in the northeast.

In addition, 39 of the deposits identified as having horticultural potential (including 8 currently leased) also have substantial quantities of fuel peat. Mining of the surface layers of horticultural peat would make the fuel peat available for exploitation.

The only fuel peat produced in the Province in the last decade has been from Bog 529 at Inkerman. This deposit has been exploited for many years for horticultural use and the underlying fuel layers are now exposed. This peat has been exported to other provinces for test burns and related experiments such as coke manufacture. As well, peat from this deposit has been used for testing purposes at a small peat-fired boiler at Lamèque, New Brunswick. The boiler was designed to provide heat for a greenhouse operation. The feasibility of a 40 MW peat-fired steam-electric power station for the Shippagan area of northeastern New Brunswick was investigated in a report for the Canada Department of Energy, Mines and Resources (Montreal Engineering Co. 1980). The study concluded that such a station would be economically feasible in relation to an oil- or coal-fired station of equivalent size. The study indicated that 2100 ha of production fields would be required to provide the annual supply to the station. Twenty-one individual deposits were identified as potential sources of supply.

The study was conducted in northern New Brunswick partly for the reason that, at the time of the study, the region was one of the few areas in Canada where detailed resource information was available. These resource data (e.g., annual production capacity of each deposit) were necessary for evaluation of transportation economics from the numerous deposits and for a variety of related parameters. However, the study was completed in a manner that would readily allow the results of the evaluation to be transferred to other locations. While the study concluded that the station could be feasible, there was relatively little effort expended to proceed with construction. One reason for this involved the fact that many of the deposits proposed for use were currently under lease for horticultural peat production. Many of the others contained large quantities of horticultural peat and were considered as long-term reserves for the industry. As well, the value of peat as a horticultural commodity was considered to be higher than the return anticipated from use for direct combustion. These resource management considerations became known in the course of the study, but assumptions were made to allow the study to proceed without addressing this situation directly.

Agricultural Uses: Numerous peatlands with suitable peat depths and drainage characteristics are available in many parts of the Province. As well, many of the peatlands selected for horticultural or fuel peat extraction have portions that are suitable for agricultural uses. Peatlands where the mineable peat reserves have been exhausted will also have good potential for agricultural reclamation. As with any agricultural soil, climate is an important factor in determining the potential of an area.

Forestry Uses: The use of peatlands for forestry has similar requirements to those given above for agricultural uses. There are numerous peatlands available for forestry uses in the Province and the technology is well known in several European countries. However, the prevailing attitude in the Province is that there are many higher quality sites available for forestry use at present and there appears to be a low probability that peatland forestry will be attempted in the near future. A drainage experiment was carried out in the Durham area (Wetmore 1972) but no follow-up has been made.

Recreational/Conservational Uses: The peatlands currently protected in Kouchibouguac Park give a good representation of those found in eastern New Brunswick. Other peatlands are proposed as Ecological Reserves and it is hoped to protect representative peatlands in various regions of the Province in this manner.

The habitat development programs carried out by organizations such as Ducks Unlimited are anticipated to continue to expand. The peatlands preferred for this purpose would have sedge surface vegetation with open water areas or possibilities for artificial control of water levels. Suitable peatlands with low potential for other uses would be available for these purposes.

Industrial Products: Recent studies for the New Brunswick Department of Commerce and Development (Andre Marsan et Associes 1980; Coupal 1982) have identified a number of products that have good market potential and that could be manufactured from the peat available in New Brunswick. Metallurgical coke, carbon fillers and raisers, and activated carbon were among the products identified. The production of building materials and methanol, and the marketability of peat for manufacture of fertilizers, as a feedstock to chemical and fermentation industries, and as an oil absorbent, were some other uses discussed.

Floral Moss: The surface or living layer of a peatland can be harvested for use in floral wreaths and for packing the roots of nursery stock for shipment. The surface layer is normally raked manually and taken to the edge of the peatland where it is placed on drying racks. The method is labour intensive and thus expensive. A mechanical harvesting method is currently being tested and, if successful, a commercial operation in the Province is envisaged. Collecting the moss so that sufficient plant material remains for regeneration would permit the collection process to be repeated after several years. The length of fibre is an important criteria in evaluating the quality of floral moss. Species such as Sphagnum magallanicum, which are up to 15 cm in length, are best suited for these purposes. Both the domestic and export market have high-demand potential for this product.

POST-MINING OPTIONS AND MANAGEMENT OBJECTIVES

The lower horizons of most peat deposits typically are not mined for either horticultural or fuel purposes. Irregularities in the sediment underlying the deposits may limit complete removal of the peat layer by conventional methods. As well, the basal peat layers often have ash contents above acceptable limits for fuel peat use.

The remaining peat layer, combined with an established drainage system, provides a good potential for agricultural or forestry uses of the peatlands on what formerly was unproductive lands. As well, experiments on the use of shallow peatlands for biomass cultivation (willows, alders, cattails) have been carried out (Healy 1980; Pratt and Andrews 1980; Pohjonen 1980). There is some potential for flooding the areas for waterfowl habitat. A scenario in which the upper layers of poorly decomposed peat were used for horticultural purposes, underlying layers of well-decomposed peats were used for fuel purposes, and the remaining layers were reclaimed for agricultural or forestry purposes would be consistent with long-term management objectives.

On a regional scale, peatland development must be considered in terms of the long-term requirements of the existing industry. Since most of the peatlands presently protected are in the eastern part of the Province, representative areas from the central and western parts should also be selected for conservation. The effect of development on wildlife habitat must be considered The effect of peatland drainage on water quality and rate of flow must be carefully evaluated (Barnes 1984). As well, the economic effect of peatland development, both in the short and long term, must be examined.

The existing legislation incorporates the necessary mechanism for the implementation of a comprehensive management policy. The inventory program gives the data base necessary to optimize the usage of various qualities of peat. These two factors allow the development of a management plan that is compatible with existing and proposed developments while ensuring that this nonrenewable resource makes the maximum contribution to the long-term benefit of the Province.

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APPENDIX 1

Numeric Summary of Investigated Peatlands

(all areas in hectares)

TABLE: MI: LOCATION DATA

BOG NO	MAP NO	NTS NO	COUNTY	LAT.	LONG.	BOG NAME	LOCATION AND ACCESS
1	I 8	21I/14-X3	NORT	465829	652813		5KM SE OF NEWCASTLE.ACCESS BY DIRT RD. FROM NELSON
1 A	I 8	21I/14-X4	NORT	465930	652448		5KM SE OF CHATHAM.ACC.2KM WALK ON P.LINE OFF RTE.11
3	I 13	21I/14-Z1	NORT	465706	650924		10KM S OF BAY DU VIN. ACCESS BY OLD WOODS ROAD.
3 A	I 8	21I/14-X4	NORT	465912	652206		30KM NW OF RTE.11 AT GLENWOOD.6KM SOUTH OF CHATHAM.
3 B	I 13	21I/14-	NORT	465530	650945		HWY 11 3KM NE ST.MARGARETS RIGHT ON ROAD
4	I 9	21I/14-U3	NORT	465455	652633		13KM SOUTH OF CHATHAM.ACCESS BY WELDFIELD SETT.ROAD
5	I 10	21I/14-U3	NORT	465258	652542		17 KM SOUTH OF CHATHAM.ACCESS BY WELFIELD SETT.ROAD
5 A	I 10	21I/14-U2	NORT	465218	652414		17 KM SOUTH OF CHATHAM.ACCESS BY WELDFIELD SETT. ROAD
6	I 12	21I/14-U2	NORT	465142	652012		4KM NW OF ROSAIREVILLE.ACC.3KM ON LOGG.RD&1KM WALK
6 A	I 10	21I/14-U1	NORT	465147	652824		17KM SSE OF NEWCASTLE. ACC. S OFF RT.126 NEAR BARNABY R.
7	I 11	21I/14-R3	NORT	464827	652854		25KM SOUTH OF CHATHAM.ACCESS BY RTE.126 & RAILWAY TRACKS
8	I 11	21I/13-T4	NORT	464800	653130		6KM NW OF COLETTE.ACC.N ON RR &3KM WALK WEST
9	I 6	21I/13-T2	NORT	464703	653714		13KM WNW OF ROGERSVILLE.ACC.LOGG.RD.TO 1KM FROM BOG
9 A	I 6	21I/13-T1	NORT	464606	653612		12KM WNW OF ROGERSVILLE.ACC.BY LOGG.RD. TO EDGE OF BOG
10	I 5	21I/13-S2	NORT	464657	654136		25KM SW OF NEWCASTLE.ACCESS BY POWERLINE EAST OF RTE118
11	I 20	21I/12-Z3	NORT	464400	653745		SITUATED 20 KM W OF ROGERSVILLE.ACCESS BY COUNTRY&LOG RD
12	I 28	21I/12-Y4	NORT	464342	654030		SITUATED 30KM W ROGERSVILLE.ACCESS BY COUNTRY&LOGG.RDS
12 A	I 28	21I/12-	NORT	464445	654345		5KM E BLACKVILLE.ACC.LOG.RDS E FROM BLACKVILLE
13	I 29	21I/12-Z4	NORT	4643[illegible]	653449		25 KM EAST OF ROGERSVILLE.ACCESS BY COUNTRY ROAD
14	I 29	21I/12-Z1	NORT	464221	653603		30KM WEST OF ROGERSVILLE.ACCESS BY LOGGING&COUNTRY RDS.
14 A	I 29	21I/12-Z3	NORT	464251	653648		14KM W OF ROGERSVILLE.ACC.BY LOGG.RD.TO EDGE OF BOG
16	I 30	21I/11-X1	KENT	464148	652536		ON ROUTE 126, 3 KM SOUTH OF ROGERSVILLE.
17	I 34	21I/12-Z2	NORT	464000	653354		13KM SW OF ROGERSVILLE. ACC WEST ON PLEASANT RIDGE ROAD
17 A	I 34	21I/12-W4	NORT	463918	653318		13KM SW OF ROGERSVILLE.ACC BY PLEASANT RIDGE RD.
19	I 31	21I/11-Y3	KENT	464330	652000		8KM SE OF ROG'VLLE.ACC. 1.3KM WALK N OFF RT.480
19 A	I 38	21I/11-U4	KENT	463942	652148		10 KM SE OF ROGERSVILLE ALONG ROUTE 123.
20	I 33	21I/11-Y2	KENT	464115	651054		17KM SW OF ROGERSVILLE.ACCESS BY BUSH RDS OFF 480
21	I 33	21I/11-Y2	KENT	464112	651324		ACCESS BY BUSH ROAD OFF RTE.480.10KM EAST OF ROGERSVILLE
22	I 36	21I/11-U3	KENT	463936	652812		10KM SE OF ROGERSVILLE.ACCESS BY BUSH ROADS
22 A	I 38	21I/11-U4	KENT	463848	652624		8KM S OF ROGERSVILLE. ACC WEST OFF RT.126 ON LOGG. RDS.
22 B	I 38	21I/11-U4	KENT	463842	652454		8KM S OF ROGERSVILLE. ACC WEST OFF RT.126 ON LOGG. RDS.
23	I 37	21I/11-X1	KENT	463542	652836		10KM SOUTHWEST OF ROGERSVILLE.ACCESS BY BUSH RD. OFF 126
23 A	I 39	21I/11-	KENT	463430	652500		18KM S OF ROGERSVILLE.ACC WEST OFF RT.126 AT KENT JCT.
24	I 40	21I/12-T4	KENT	463406	653218		SITUATED 20KM NW OF HARCOURT.ACCESS BY LOGGING&BUSH RDS.
25	I 41	21I/12-T2	KENT	463145	653054		20KM NW OF HARCOURT. ACC N OFF RT.116 ON LOGG. RDS.
25 A	I 41	21I/12-T2	KENT	463224	653342		10KM NORTH OF RTE116 KENT CO.ACCESS BY LOGGING ROADS
25 D	I 41	21I/12-T2	KENT	463025	653300		15KM SW OF KENT JCT.ACC BY IRVING LOGG.RD.OFF RTE.116
25 E	I 41	21I/12-T2	KENT	463045	653400		15KM SW OF KENT JCT.ACC BY IRVING LOG.RD.OFF RTE.116
26	I 40	21I/12-T1	KENT	463222	653542		24KM SW OF ROGERSVILLE.ACC BY LOGG.RDS.&WALK.
27	I 45	21I/05-Z4	KENT	462938	653442		17KM N OF SALMON RIVER.ACCESS BY LOGGING ROADS

TABLE: M1: LOCATION DATA

BOG NO	MAP NO	NTS NO	COUNTY	LAT.	LONG.	BOG NAME	LOCATION AND ACCESS
28	I 44	21I/05-Z3	KENT	462900	653842	ALLAGASH HEATH	30KM W OF HARCOURT.ACCESS BY LOGG.RD. OFF RT.116
29	I 44	21I/05-Y2	KENT	462724	654112		15KM N OF RTE 116.ACC BY LOGG.RD.FOR 20KM & WALK
30	I 42	21I/05-Y1	NORT	462606	654724		NEAR MEADOW BK.LAKE.ACC 12KM ON LOGG.RD.OFF RTE.123
31	I 43	21I/05-Y2	KENT	462500	654300		NEAR SIX MILE BK.ACC BY LOGG.OFF RTE.116 FOR 16 KM
32	I 78	21I/05-R3	SUNB	462000	655700		18KM NORTH OF CHIPMAN.ACCESS JUST WEST OF RT.123
32 A	I 78	21I/05-R3	SUNB	461915	655500		17KM NORTH OF CHIPMAN.ACCESS BY RT.123 & LOGGING ROAD
33	I 79	21I/05-V1	KENT	462130	654536		NEAR TROUT BK LAKE 8KM N OF RT116.ACCESS BY LOGGING RDS.
34	I 50	21I/06-U4	KENT	462318	652200		SITUATED 12 KM SW OF HARCOURT.ACCESS BY BUSH RD OFF R116
36	I 39	21I/11-U1	KENT	463618	651618		5KM EAST OF KENT JCT.ACC 5KM ON DIRT RD.TO S OF BOG
36 A	I 39	21I/11-U1	KENT	463524	651830		3KM E OF KENT JCT.ACC 3KM ON DIRT RD.TO NORTH OF BOG
37	I 49	21I/06-Y2	KENT	462536	651424		3KM WEST OF GRANGEVILLE.ACC BY DIRT RD.OFF RTE.126
38	I 55	21I/06-S3	KENT	461900	651624		18KM S OF HARCOURT.ACC BY COAL BR.RD.FOR 8KM,4KM WALK
39	I 56	21I/06-S4	KENT	461730	651254		5KM W OF COAL BR.ACC BY LOG.RD.OFF 126 FOR 6KM,4KM WALK
40	I 57	21I/06-T3	KENT	461738	650928	BIRCH RIDGE BOG	3KM W OF BIRCH RIDGE ON RTE.126.ACC.3KM WALK
41	I 57	21I/06-T3	KENT	461844	650758		.5KM WEST OF BIRCH RIDGE.ACC BY FOOT OFF RTE.126
42	I 59	21I/06-T1	NORT	461642	650606		NEAR HEBERT SIDING.ACCESS IS WEST OF RTE.126 BY FOOT
43	I 58	21I/06-T3	KENT	461900	650600		EAST OF BIRCH RIDGE.ACCESS ON LOGG.RD.OFF RTE.126
44	I 82	21I/04-Z4	QUEE	461430	652830		33KM EAST OF CHIPMAN.ACCESS-EAST ON RIDGE RD.THEN SOUTH
44 A	I 80	21I/06-	KENT	461655	652940		ON EAST BR. COY BROOK.ACCESS OFF RT.116 ONTO LOGG. RDS.
45	I 83	21I/03-X3	QUEE	461315	652400		15KM NORTH OF RT.112 AT EAST CANAAN.ACCESS ON RAILROAD
46	I 84	21I/03-X2	WEST	461200	652130		14KM NORTH OF RT.112 AT EAST CANAAN.ACCESS BY RAILROAD
47	I 88	21I/03-V3	WEST	461100	651930		12KM NORTH OF EAST CANAAN.ACCESS NORTHFROM EAST CANAAN
47 A	I 88	21I/03-U4	WEST	461045	652330		10KM NORTH OF EAST CANAAN.ACCESS ON LOGG.RDS. OFF RT.112
48	I 81	21I/04-Z4	QUEE	461330	653315		20KM NORTH OF CANAAN FORKS.ACCESS BY LOGGING ROADS.
49	I 92	21I/04-U4	QUEE	460845	654145		15KM NW OF CANAAN FORKS.ACCESS BY LOGG.RDS. OFF RT.112
50	I 92	21I/04-V2	QUEE	460730	654200		14KM NW OF CANAAN FORKS.ACCESS BY LOGG.RDS. OFF RT.112
52	I 89	21I/03-U2	QUEE	460645	652115		6KM NORTH OF RT.112 AT EAST CANAAN.ACCESS BY LOGGING RDS
52 A	I 90	21I/03-U2	QUEE	460500	651230		2KM NORTH OF EAST CANAAN ON LOGGING RD.THEN SHORT WALK
52 B	I 90	21I/03-R3	QUEE	460500	652545		JUST NORTH OF RT.112 AT COREY.SHORT WALK THROUGH WOODS
52 C	I 90	21I/03-U2	QUEE	460515	652445		2KM NORTH OF RT.112 AT COREY.LOGGING RD. TO BOGS EDGE.
53	I 87	21I/03-W3	WEST	460830	650745	JORDAN MEADOW	9KM NORTH OF RT.112 AT HAREWOOD.ACCESS BY LOGGING RDS.
54	I 62	21I/03-Z4	WEST	461330	650227		4KM W GALLAGHER RIDGE.ACC DIRT RD.OFF RTE.126&TRACK
55	I 60	21I/07-R1	KENT	461630	645848		8KM EAST OF HEBERT SIDING.ACC 3KM BY LOGG.RD.OFF RT.485
55 A	I 61	21I/07-R1	KENT	461724	645600		10KM E OF CANAAN.ACC BY DIRT RD.OFF RTE.485
56	I 63	21I/02-X3	WEST	461242	645809		GALLAGHER RIDGE.BOG IS NEXT TO RTE.126 EAST
57	I 64	21I/03-Z2	WEST	461000	650030		8KM N BERRY MILLS.ACC NORTH BY DIRT RD.&TRACK
58	I 67	21I/02-V4	WEST	460818	644200		2KM NORTH OF MONCTON AIRPORT.ACCESS NORTH OFF T.C.H.
58 A	I 67	21I/02-V2	WEST	460712	644024		N OF MONCTON AIRPORT.ACC BY FOOT FOR 0.5KM FROM TCH
60	I 69	21I/02-W4	WEST	460824	643242		3KM SE DORCHESTER CROSSING.ACC BY DIRT RD.OFF RTE.132
61	I 71	21I/01-R3	WEST	460900	642724		9KM SE SHEDIAC.ACC BY DIRT RD.OFF RTE.15

TABLE: M1: LOCATION DATA

BOG NO	MAP NO	NTS NO	COUNTY	LAT.	LONG.	BOG NAME	LOCATION AND ACCESS
62	I 67	21I/02-V4	WEST	460842	644430		NE OF MONCTON.ACC.BY FOOT 2KM E OF 115 AT CHERRYFIELD
63	I 68	21I/02-W3	WEST	460924	643930		9KM NE MONCTON.ACC.BY RTE.134 EAST
64	I 68	21I/02-W3	WEST	461000	643830		10KM NE OF MONCTON,ALONG RTE 134.ACC 300M WALK
66	I 68	21I/02-Y2	WEST	461012	644336		2KM NE OF MONCTON.ACC 3KM WALK ON TRAIL OFF RTE.115
70	I 65	21I/02-R1	ALBE	460200	645700		10KM SW MONCTON.ACC 1KM WALK S OFF RTE.112 AT COVERDALE
71	I 65	21I/02-R1	ALBE	460112	645600		10KM SW MONCTON.ACC 2KM WALK S OFF RTE.112 AT COVERDALE
72	I 67	21I/02-V4	WEST	460915	644712		N OF MONCTON ALONG RTE.115 OPPOSITE TO AIRSTRIP.
73	I 66	21I/02-R2	ALBE	460036	645030		S OF MONCTON.ACC 2KM WALK ON P.LINE 3006 OFF RTE 910
75	I 66	21I/02-S1	ALBE	460148	644900		4KM SW RIVERVIEW.ACC BY OLD LOGG.RD.OFF RTE.112
76	I 70	21I/01-X1	WEST	461130	642742		6KM ESE SHEDIAC.ACC 0.7KM WALK SOUTH OFF RTE.15
77	I 75	21I/01-Y2	WEST	461212	641418		1.5KM SE OF CAP PELE ALONG E SIDE OF RTE 15.ACC BY WALK
77 A	I 75	21I/01-Y3	WEST	461320	641810		2KM W OF CAP PELE.ACC 2KM W ON RTE 15,& N 0.5KM ON 950
78	I 75	21I/01-Y2	WEST	461124	641218		3KM SE OF CAP PELE.ACC 1.8KM WALK ON TRAIL OFF RTE.950
79	I 75	21I/01-Y2	WEST	461030	641430		6.7KM SE OF CAP PELE.ACC 1.0KM WALK ON TRAIL OFF RTE.15
95	I 72	21I/01-U2	WEST	460555	642342		6KM S OF H.ABOUJAGANE ALONG RTE 930. ACC BY WALK.
96	I 72	21I/01-U2	WEST	460542	642224		6KM S OF H.ABOUJAGANE ON RTE 930. ACC 0.4KM WALK EAST
98	I 71	21I/01-R3	WEST	460600	642900		8KM ESE OF SCOUDOUC. ACC 2KM WALK SOUTH OFF DIRT RD.
103	I 62	21I/03-Z4	WEST	461400	650130		3KM NORTH OF GALLAGHER RIDGE NEXT TO RTE.126
104	I 62	21I/03-Z4	WEST	461400	650333		2KM S CANAAN. ACC 0.4KM WALK OFF RTE.126
105	I 62	21I/03-Z4	WEST	461330	650100		0.3KM WEST OF RTE.126, NEAR GALLAGHER
106	I 88	21I/03-V3	WEST	461015	651845		11KM NORTH OF EAST CANAAN.ACCESS NORTH FROM EAST CANAAN
107	I 87	21I/03-W3	WEST	460815	650645	KILLAM MEADOW	9KM N OF RT.112 AT HAREWOOD;ACCESS BY LOGGING RDS.
107 A	I 87	21I/03-W3	WEST	460830	650450		9KM N OF RT.112 AT HAREWOOD;ACCESS BY LOGGING RDS.
108	I 82	21I/04-Z4	QUEE	461345	652730		1KM NORTH OF RAILROAD AT CANAAN.ACCESS ALONG RAILROAD
110	I 83	21I/03-X3	QUEE	461315	652630		16KM NORTH OF RT.112 AT CANAAN.ACCESS ALONG RAILROAD
111	I 89	21I/03-V1	QUEE	460800	652145		7KM NORTH OF RT.112 AT EAST CANAAN.ACCESS BY LOGG.RDS.
112	I 89	21I/03-V1	WEST	460750	652030		7KM NORTH OF RT.112 AT EAST CANAAN.ACCESS BY LOGGING RDS
113	I 88	21I/03-V1	WEST	460700	651745		5KM NE OF RT.112 AT EAST CANAAN.ACCESS BY LOGGING ROAD.
114	I 88	21I/03-V1	WEST	460630	651815		4KM NE OF RT.112 AT EAST CANAAN.ACCESS BY LOGGING RD.
115	I 64	21I/03-Z2	WEST	461100	650230		10KM N BERRY MILLS.ACC.NORTH BY DIRT RD&TRAILS
116	I 64	21I/03-W4	WEST	461000	650300		12KM NORTH OF RT.112 AT T.C.H. ACCESS BY LOGGING RDS.
117	I 62	21I/03-Z2	WEST	461208	650009		0.5KM WEST OF RTE.126, NEAR GALLAGHER
118	I 86	21I/03-Y4	WEST	461230	651200		16KM NORTH OF RT.112 AT HAREWOOD.ACCESS BY LOGG.RDS.
118 A	I 86	21I/03-Y4	WEST	461330	651230		15KM NORTH OF HAREWOOD ON RT.112.ACCESS BY LOGG.RDS.
119	I 84	21I/03-X4	WEST	461230	652000		15KM NORTH OF RT.112 AT EAST CANAAN.ACCESS ALONG RAILRD.
120	I 43	21I/05-Y2	KENT	462606	654400		SALMON RIVER,15KM NORTH OF RTE.116.ACC.BY IRVING RD.
121	I 83	21I/03-X3	QUEE	461400	652500		17KM NORTH OF RT.112 AT CANAAN.ACCESS ALONG RAILROAD.
121 A	I 83	21I/03-X3	QUEE	461445	652500		18KM NORTH OF RT.112 AT CANAAN.ACCESS ALONG RAILROAD
122	I 44	21I/05-Z	KENT	462812	653954		36KM NE CHIPMAN.ACC.BY IRVING LOGG.RD.OFF RTE.126
123	I 44	21I/05-Z3	KENT	462742	654000		35KM NE CHIPMAN.ACC.BY IRVING LOGG.RD.OFF RTE.126

TABLE: M1: LOCATION DATA

BOG NO	MAP NO	NTS NO	COUNTY	LAT.	LONG.	BOG NAME	LOCATION AND ACCESS
124	I 45	21I/05-Z3	KENT	462926	653642		NEAR BIG FORKS STREAM,15KM NORTH OF RT.116 BY IRVING RD.
125	I 45	21I/05-Z3	KENT	462808	653736		14KM NORTHOF RTE.116.ACCESS IS 20KM ON IRVING LOGG.RD.
126	I 80	21I/05-T2	QUEE	461510	653150		26KM EAST OF CHIPMAN.ACCESS BY BRONSON SETT.&LOGG.RDS.
126 A	I 79	21I/05-T3	QUEE	461730	653815		19KM NE OF CHIPMAN.ACCESS BY BRONSON SETT.&LOGG. RDS.
130	I 42	21I/05-Y1	NORT	462518	654648		28KM NORTH OF CHIPMAN.ACC.ON IRVING RD.OFF RTE.123
133	I 79	21I/05-U1	KENT	462036	654636		7KM NORTH OF SALMONRIVER.ACC.13KM ON IRVING RD.OFF 116
134	I 97	21I/12-R1	NORT	462700	655830		14KM SE OF DOAKTOWN.ACCESS ON SOUTH DOAKT.RD.&LOGG.RDS.
134 A	I 97	21I/12-R1	NORT	462750	650945		14KM SE OF DOAKTOWN.ACCESS ON SOUTH DOAKT.RD.&LOGG.RDS.
135	I 97	21I/12-R1	NORT	462645	655745		14KM SE OF DOAKTOWN.ACCESS ON SOUTH DOAKT.RD.&LOGG.RDS.
137	I 98	21I/05-U4	NORT	462640	655430		15KM SE OF DOAKTOWN.ACCESS BY RT.123 & LOGGING ROADS
138	I 98	21I/05-U4	NORT	462500	655145		26KM SE OF DOAKTOWN.ACCESS BY RT.123 & LOGGING ROADS.
139	I 99	21I/05-U4	NORT	462400	655600		25KM SE OF DOAKTOWN.ACCESS BY RT.123 & LOGGING ROADS.
139 A	I 98	21I/05-U4	NORT	462530	655530		24KM SE OF DOAKTOWN.ACCESS BY RT.123 & LOGGING ROADS
140	I 99	21I/05-U1	NORT	462315	655400		26KM SE OF DOAKTOWN.ACCESS BY RT.123 & LOGGING ROADS
141	I 42	21I/05-U4	NORT	462418	654642		14KM NORTH OF RTE.116.ACCESS BY IRVING RD.FOR 15KM
144	I 92	21I/04-V3	QUEE	461015	654715		8KM EAST OF CHIPMAN.ACCESS ON BRONSON SETT. RD.
145	I 92	21I/04-U2	QUEE	460745	654300		15KM NW OF CANAAN FORKS.ACCESS BY LOGG.RDS. OFF RT.112
146	I 92	21I/04-V2	QUEE	460700	654245		14KM NW OF CANAAN FORKS.ACCESS BY LOGG.RDS. OFF RT. 112
146 B	I 93	21I/04-V2	QUEE	460615	654215		13KM WEST OF CANAAN FORKS.ACCESS BY LOGG.RDS. OFF RT.112
146 C	I 92	21I/04-V2	QUEE	460615	653915		9KM WEST OF CANAAN FORKS.ACCESS BY LOGG.RDS. OFF RT. 112
147	I 92	21I/04-V2	QUEE	460700	654145		13KM NW OF CANAAN FORKS.ACCESS BY LOGG.RDS. OFF RT. 112
148	I 92	21I/04-V2	QUEE	460720	654100		13KM NW OF CANAAN FORKS.ACCESS BY LOGG.RDS. OFF RT.112
149	I 92	21I/04-V2	QUEE	460730	654030		13KM NW OF CANAAN FORKS.ACCESS BY LOGG.RDS. OFF RT. 112
150	I 92	21I/04-W3	QUEE	460730	653830		12KM NW OF CANAAN FORKS.ACCESS BY LOGG.RDS. OFF RT. 112
150 A	I 93	21I/04-W2	QUEE	460440	653245		4KM NORTH OF CANAAN FORKS.ACCESS ON ROADS OFF RT.112
151	I 81	21I/04-Z4	QUEE	461300	653445		19KM NORTH OF CANAAN FORKS.ACCESS BY LOGGING ROADS.
152	I 81	21I/04-Z4	QUEE	461245	653300		19KM NORTH OF CANAAN FORKS.ACCESS BY LOGG.RDS.OFF RT.112
153	I 81	21I/03-X3	QUEE	461345	653115		20KM NORTH OF CANAAN FORKS.ACCESS BY LOGGING ROADS.
154	I 81	21I/04-Z2	QUEE	461230	653415		18KM NORTH OF CANAAN FORKS.ACCESS BY LOGG.RDSOFF RT.112
154 A	I 91	21I/04-Z2	QUEE	461030	653400		14KM NORTH OF RT.112 AT CANAAN FORKS.ACCESS ON LOGG.RDS.
154 B	I 91	21I/04-Z2	QUEE	461020	652930		14KM NORTH OF RT.112 AT NEW CANAAN.ACCESS ON LOGG.RDS.
155	I 91	21I/04-Z2	QUEE	461100	653610		15KM NORTH OF RT.112 AT CANAAN FORKS.ACCESS ON LOGG.RDS.
156	I 93	21I/04-S4	QUEE	460245	654415		14KM WEST OF CANAAN FORKS.ACCESS BY LOGG.RDS. OFF RT.112
158	I 80	21I/06-R1	KENT	461615	652700		NEAR LAKE STREAM,30KM EAST OF CHIPMAN.ACC. ON LOGG.RDS.
159	I 47	21I/06-Y1	KENT	462700	651830		4KM WEST OF HARCOURT.ACCESS BY LOGG.RD.OFF RTE.116
159 A	I 47	21I/06-Y4	KENT	462930	651236		4KM E MORTIMER.ACC BY DIRT RD.OFF RTE.126
160	I 48	21I/06-V1	KENT	462410	651948		10KM SW OF HARCOURT.ACC BY IRVING LOGG.RD.OFF RTE.116
161	I 48	21I/06-Y1	KENT	462445	651910		8KM WEST OF HARCOURT.ACCESS SOUTH ON LOGG.RD.OFF RT.116
162	I 48	21I/06-Y1	KENT	462445	651718		5KM WEST OF GRANGEVILLE.ACCESS BY LOGG.RD.OFF RTE.126
162 A	I 48	21I/06-V3	KENT	462355	651830		7KM W GRANGEVILLE.ACC BY LOGG.RD.&TRAILS OFF RTE.126

TABLE: M1: LOCATION DATA

BOG NO	MAP NO	NTS NO	COUNTY	LAT.	LONG.	BOG NAME	LOCATION AND ACCESS
163	I 48	21I/06-Y1	KENT	462445	651624		4KM WEST OF GRANGEVILLE.ACCESS BY LOGG.RD.OFF RTE.126
164	I 58	21I/06-T3	KENT	461830	650600		3KM SE BIRCH RIDGE.ACC 0.8KM WALK EAST OFF RTE.126
165	I 58	21I/06-T4	KENT	461745	650530		NEXT TO RTE.126 AT HEBERT SIDING.ACCESS BY FOOT
166	I 58	21I/06-W1	KENT	462039	650512		4KM NE BIRCH RIDGE.ACC. 3KM WALK EST OFF RTE.126
167	I 56	21I/06-W2	KENT	462000	650448		3KM NE BIRCH RIDGE.ACC.BY TRAILS NORTH OFF RTE.515
168	I 58	21I/06-W2	KENT	461936	650312		3KM NE BIRCH RIDGE.ACC.BY TRAILS NORTH OFF RTE.515
169	I 59	21I/06-T1	KENT	461712	650600		2KM NW OF HEBERT SIDING,ALONG RTE.126.ACC.4KM WALK
170	I 53	21I/06-W4	KENT	462300	650130		9KM E COAL BRANCH.ACC.BY DIRT RD.OFF RTE.465
170 A	I 53	21I/06-W4	KENT	462300	650230		9KM E COAL BRANCH.ACC.BY DIRT RD.OFF RTE.465
171	I 53	21I/06-W2	KENT	462230	650130		9KM E COAL BRANCH.ACC.BY DIRT RD.OFF RTE.465
171 A	I 53	21I/07-X1	KENT	462518	645942		5KM NORTH OF MCLEAN SETT.ACCESS BY FOOT OFF RTE.490
173	I 52	21I/06-V3	KENT	462312	651318		2.5KM W ADAMSVILLE.ACC.BY DIRT RD.OFF RTE.126
173 A	I 52	21I/06-V1	KENT	462242	651518		6KM WEST OF ADAMSVILLE.ACCESS BY DIRT RD.OFF RTE.126
174	I 56	21I/06-S4	KENT	461945	651300		6KM SW COAL BRANCH.ACC BY COAL BR.LAKE RD.OFF RTE.126
176	I 59	21I/06-T1	KENT	461642	650818		4KM W OF HEBERT SIDING.ACC 0.5KM WALK,TRAIL OFF RT.126
177	I 86	21I/03-	KENT	461510	651045		47KM W MONCTON.ACC.LOG.RD. FR E CANAAN N 25 KM TO RR
178	I 59	21I/06-T1	WEST	461548	650854		6KM W OF CANAAN.ACC.7KM WALK ON TRAIL FROM CANAAN
179	I 59	21I/06-T1	WEST	461524	650642		4KM WEST OF CANAAN.ACCESS BY LOGG.RD. OFF RTE.126
180	I 59	21I/06-T1	WEST	461536	650454		1.3KM S HEBERT.ACC.0.5KM WALK WEST OFF RTE.126
181	I 46	21I/06-X4	KENT	462930	652318		10KM W OF HARCOURT.ACC.8KM ON 116&5KM NORTH ON LOGG.RD.
181 A	I 46	21I/11-	KENT	463210	652500		22KM S OF ROGERSVILLE.ACC.W OFF RT.126 AT KENT JCT.
182	I 46	21I/06-X4	KENT	462912	652430		12KM W OF HARCOURT.ACC.8KM ON 116&5KM NORTH ON LOGG.RD.
183	I 46	21I/06-	KENT	462848	652630		14KM W OF HARCOURT.ACC.8KM ON 116&10KM N ON LOGG.RD.
190	I 47	21I/06-Y1	KENT	462706	651530		2KM WEST OF HARCOURT. ACCESS BY FOOT
190 A	I 47	21I/06-Y4	KENT	462900	651416		1.3KM NE HARCOURT.ACC.BY FOOT ON POWER LINE OFF RT.116
191	I 48	21I/06-X2	KENT	462530	652018		9KM SW OF HARCOURT.ACC.12KM ON 116&SOUTH ON LOGG.RD.
192	I 50	21I/06-U4	KENT	462418	652430		15KM W OF HARCOURT.ACC.12KM ON 116&SOUTH ON LOGG.RD.
193	I 50	21I/06-U4	KENT	462036	652400		18KM SW OF HARCOURT.ACC.12KM ON 116&10KM ON LOGG.RD.
194	I 51	21I/06-U2	KENT	462018	652018		14KM W OF ADAMSVILLE.ACC.BY DIRT RD.OFF 126 FOR 6KM
195	I 51	21I/06-S3	KENT	461940	651900		13KM W OF ADAMSVILLE.ACC.BY DIRT RD.OFF 126 FOR 6KM
196	I 50	21I/06-U2	KENT	462218	652248		16KM SW OF HARCOURT.ACC.12KM ON 116&7KM S ON LOGG.RD.
197	I 49	21I/06-V4	KENT	462430	651054		1KM NE ADAMSVILLE.ACC.DIRT RD.OFF RTE.126&0.3KM WALK
198	I 55	21I/06-S1	KENT	461754	651824		13KM W COAL BRANCH.ACC.BY FOOT FROM COAL BRANCH LAKE
198 A	I 55	21I/06-S1	KENT	461730	651706		15KM W OF COAL BRANCH.ACC.BY DIRT RD.OFF 126&8KM WALK
199	I 55	21I/06-S1	KENT	461700	651930		12KM W OF COAL BRANCH.ACC.BY DIRT RD.OFF 126&8KM WALK
200	I 85	21I/03-Y3	WEST	461530	651700		21KM NORTH OF EAST CANAAN.ACCESS BY LOGG.RDS. & FOOT
200 A	I 85	21I/03-Y3	WEST	461415	651545		20KM NORTH OF EAST CANAAN.ACCESS BY LOGG.RDS.&FOOT.
202	I 54	21I/06-R2	KENT	461600	652124		18KM W OF COAL BR.ACC.8KM DIRT RD OFF 126&10KM WALK
203	I 94	21I/12-X3	NORT	464430	655615		8KM WEST OF BLACKVILLE ON DUNGARVON RD.,THEN 0.4KM NORTH
203 A	I 94	21I/12-X3	NORT	464440	655715		8KM WEST OF BLACKVILLE ON DUNGARVON RD.,THEN 800 M NORTH

TABLE: M1: LOCATION DATA

BOG NO	MAP NO	NTS NO	COUNTY	LAT.	LONG.	BOG NAME	LOCATION AND ACCESS
203 B	I 94	21I/12-R1	NORT	464515	655615		8KM WEST OF BLCKVILLE,ON DUNGARVON RD.,THEN 2KM NORTH
204	I 60	21I/07-R1	WEST	461542	645836		7KM E CANAAN.ACC.3KM WALK N FROM DIRT RD.OFF RTE.126
204 A	I 61	21I/07-R2	WEST	461718	645330		2.5KM NW OF DUNDAS.ACC. .8KM WALK WEST OFF RTE.490
205	I 60	21I/03-Z4	WEST	461442	650030		6KM EAST OF CANAAN.ACC.BY LOGG.RD.OFF RTE.485
205 A	I 61	21I/07-R2	WEST	461600	645224		1KM WEST OF DUNDAS.ACCESS 1KM WALK FROM RTE.490
206	I 68	21I/07-	KENT	461815	643520		2KM N SHEDIAC BRIDGE RIGHT HAND SIDE OF HWY 11
207	I 68	21I/07-	KENT	461800	643500		2KM N SHEDIAC BRIDGE RIGHT SIDE HWY 11
208	I 68	21I/07-	KENT	461745	643545		2KM N SHEDIAC BRIDGE LEFT SIDE HWY 11
209	I 53	21I/07-U1	KENT	462218	645918		1.5KM W OF MCLEAN SETT.ACC. 1.5KM WALK ON TRAIL
209 A	I 53	21I/07-U3	KENT	462342	645912		4KM NW MCLEAN SETT.ACC.BY TRAIL OFF RTE.490
211	I 26	21I/10-Y2	KENT	464048	644342	MOCAUQUE DU CAP	2.5KM NORTH OF CAP LUMIERE.ACCESS BY DIRT RD OFF RTE 505
212	I 27	21I/10-V3	KENT	463800	644342		2KM SOUTH OF RICHIBUCTOU VILL.ACCESS BY FARM ROAD
213	I 24	21I/12-U3	KENT	463954	645524	ST. CHARLES BOG	3KM WEST OF REXTON. ACCESS BY VARIOUS ROADS & CNR
213 A	I 32	21I/11-Z2	KENT	464118	650100		4KM NE OF ST-CHARLES.ACC. .7KM WALK OFF DIRT ROAD
214	I 25	21I/10-U4	KENT	463736	644630		3KM SW OF RICHIBUCTO VILLAGE ALONG DIRT ROAD
214 A	I 25	21I/10-V3	KENT	463245	644700		3KM SW OF RICHIBUCTO VILLAGE.ACC. .3KM WALK OFF DIRT RD.
215	I 25	21I/10-V3	KENT	463912	644906		4KM W OF RICHIBUCTO VILLAGE ALONG RTE.505
217	I 25	21I/11-U2	KENT	463536	645406		4KM SW OF REXTON.ACC..4KM WALK EAST OFF RTE.495
217 A	I 39	21I/11-W2	KENT	463625	650045		13KM WSW OF RICHIBUCTO.ACCESS OFF RTE.116 OR RAILROAD
218	I 39	21I/11-V1	KENT	463700	651518		15KM N OF HARCOURT.ACCESS BY BUSH RD.OFF COUNTRY ROAD.
219	I 31	21I/11-X4	KENT	464412	652118		5KM EAST OF ROGERSVILLE.ACCESS THROUGH THE BUSH OFF R480
219 A	I 31	21I/11-X4	KENT	464324	652300		4KM E OF ROGERSVILLE, ON GOOD ROADS.
219 B	I 22	21I/14-	NORT	464545	652300		5KM E ROGERSVILLE.ACCESS 5KM WALK E OF E ROGERSVILLE
220	I 38	21I/11-U2	KENT	463706	652048		20KM NORTH OF HARCOURT ON EAST SIDE OF ROUTE 126
220 A	I 38	21I/11-U4	KENT	463800	652106		20KM N OF HARCOURT.ACCESS BY BUSH RD OFF RTE 126
221	I 38	21I/11-U2	KENT	463700	652200		15KM SE OF ROGERSVILLE, JUST WEST OF ROUTE 126
224	I 37	21I/11-X1	KENT	463630	652954		16KM SW OF ROGERSVILLE.ACC.BY PLEASANT RIDGE RD&LOG.RD.
225	I 37	21I/12-T4	KENT	463642	653136		6KM SW OF ROGERSVILLE.ACC.LOGG.RD.FROM DEPRES LAKE
226	I 37	21I/12-T4	KENT	463512	653142		16KM SW OF ROGERSVILLE.ACC.BY PLEASANT RIDGE&LOGG.RD.
227	I 37	21I/12-T4	KENT	463515	653006		15KM SW ROGERSVILLE.ACC.LOGG.RD.OFF PLEASANT RIDGE RD.
228	I 36	21I/12-Z2	KENT	464000	653024		10KM SW OF ROGERSVILLE.ACC.1KM WALK OFF DIRT ROAD
228 A	I 30	21I/11-X1	KENT	464206	653000		5KM WSW OF ROGERSVILLE, ALONG PLEASANT RIDGE ROAD.
229	I 33	21I/11-V4	KENT	463948	651318		12KM ESE OF ACADIE SIDING.ACC.DIRT ROAD.&LOGG.RD TO BOG
230	I 33	21I/11-V4	KENT	464124	650730		7.5KM SW OF BRETAGNEVILLE.ACC.BY DIRT RD.&WALK.5KM N
242	I 35	21I/12-W4	KENT	463812	653406		13KM SW OF ROGERSVILLE.ACC.BY PLEASANT RIDGE ROAD
242 A	I 95	21I/12-	KENT	463500	654820		15KM SSE BLACKVILLE.ACC.OFF RTE.8BY DIRT&LOGG.RDS
242 B	I 95	21I/12-	KENT	463630	654715		14KM SSE BLACKVILLE.ACC.OFF RTE.8 BY DIRT & LOGG.RDS.
242 C	I 95	21I/12-	KENT	463525	654645		15KM SSE BLACKVILLE.ACC.OFF RTE.8 BY DIRT&LOGG.RDS.
243	I 35	21I/12-W4	KENT	463818	653236		17KM SW OF ROGERSVILLE.ACC.BY LOGG.RD.OFF PLEASANT RD.
244	I 35	21I/12-W4	KENT	463854	653200		16KM SW OF ROGERSVILLE.ACC.BY PLEASANT RIDGE ROAD

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BOG NO	MAP NO	NTS NO	COUNTY	LAT.	LONG.	BOG NAME	LOCATION AND ACCESS
245	I 36	21I/12-W4	KENT	463830	653024		13KM SSW OF ROGERSVILLE. ACC. WEST OFF RT.126 ON LOGG RD
248	I 40	21I/12-T1	KENT	463145	653642		25KM SW ROGERSVILLE.ACC.LOGG.RD.OFF PLEASANT RIDGE RD.
249	I 40	21I/12-T3	KENT	463336	653442		21KM SW ROGERSVILLE.ACC.LOGG.RD.OFF PLEASANT RIDGE RD.
250	I 40	21I/12-T4	KENT	463318	653430		21KM SW ROGERSVILLE.ACC.LOGG.RD.OFF PLEASANT RIDGE RD.
251	I 41	21I/12-T4	KENT	463306	653319		15KM SW OF KENT JCT.ACC.BY IRVING LOGG.RD.OFF RTE.116
252	I 28	21I/12-Z4	NORT	464448	653812		16KM E OF ROGERSVILLE.ACC.BY LOGG.RD.&2KM WALK
253	I 34	21I/12-Z2	NORT	464124	653348		11KM SW OF ROGERSVILLE. ACCESS OFF YOUNGS RIDGE ROAD.
256	I 34	21I/12-W3	NORT	464000	653900		17KM SW OF ROGERSVILLE. ACC.WEST OFF RT.126 ON LOGG.RDS.
256 A	I 95	21I/12-Y1	NORT	464130	654830		6.5KM SOUTH OF BLACKVILLE.ACCESS EAST ON HOWARD RD.
256 B	I 95	21I/12-Y1	NORT	464100	655000		6KM S OF BLACKVILLE.ACCESS EAST ON HOWARD ROAD.
256 C	I 95	21I/12-V3	NORT	463945	654900		6KM SOUTH OF BLACKVILLE.ACCESS EAST ON HOWARD ROAD
257	I 34	21I/12-W3	NORT	463948	653800		17KM SW OF ROGERSVILLE. ACC.WEST OFF RT.126 ON LOGG.RDS.
258	I 34	21I/12-Z1	NORT	464030	653536		15KM SW OF ROGERSVILLE. ACC.WEST OFF RT.126 ON LOGG.RDS.
261	I 96	21I/12-R2	NORT	463030	654940		24KM SE OF DOAKTOWN.ACCESS BY RTE 123 AND LOGG. ROADS
261 A	I 96	21I/05-Y4	NORT	462920	654610		27KM EAST OF DOAKTOWN.ACCESS BY RT.123&LOGGING ROADS
261 B	I 96	21I/12-R4	NORT	463245	655230		9KM SOUTH OF UPP.BLACKVILLE.ACCESS SOUTHON HOWARD RD.
261 C	I 96	21I/12-R4	NORT	463430	655200		7KM SOUTH OF UPP.BLACKVILLE.ACCESS SOUTH ON HOWARD RD.
263	I 7	21I/13-Z4	NORT	465526	653500		5KM SW OF NELSON. ACCESS OF RT.126 AND POWER LINE 0007
264	I 7	21I/13-Z4	NORT	465526	653410		9KM S OF NEWCASTLE. ACC. ALONG POWER LINE 0007 FR. RT126
265	I 7	21I/14-W4	KENT	465450	653220		2.8KM NW OF BARNABY R.ACC.BY RAILROAD&.5KM WALK
266	I 3	21I/13-Y2	NORT	465400	654213		15KM SW OF NEWCASTLE.ACC BY PAVED RD.OFF RT.8 AT DERBY
267	I 4	21I/13-Y1	NORT	465114	654912		1.5KM SE OF UPPER NELSON.ACC.WALK 1.5KM OFF RTE.118
268	I 4	21I/13-S3	NORT	464927	655050		4KM S OF UPP.NELSON. ACC.SOUTH OFF RT.118 ON HYDRO LINE
269	I 5	21I/13-S4	NORT	464853	654413		25KM SW OF NEWCASTLE.ACCESS BY POWERLINE EAST OF RTE118
270	I 5	21I/13-S4	NORT	464812	654500		1KM E OF WHITE RAPIDS. ACCESS EAST OFF ROUTE 118.
271	I 5	21I/13-S2	NORT	464549	654050		25KM SW OF NEWCASTLE.ACCESS BY POWER LINES OFF RT.118
276	I 1	21I/13-U	NORT	465355	655515		13KM NW OF RENOUS.ACC.ON LOGG.RDS. NORTH OFF RT.108
277	I 1	21I/13-U	NORT	465320	655550		13KM NW OF RENOUS.ACC.OFF LOGG.RDS.NORTH OFF RTE.108
278	I 1	21I/13-U	NORT	465315	655445		13KM NW OF RENOUS.ACC.OFF LOGG.RDS.NORTH OFF RTE.108
279	I 1	21I/13-U	NORT	465305	655400		13KM NW OF RENOUS.ACC.OFF LOGG.RDS.NORTH OFF RTE.108
282	I 1	21I/13-U	NORT	465240	655555		13KM NW OF RENOUS.ACC.OFF LOGG.RDS.NORTH OFF RTE.108
284	I 2	21I/13-S2	NORT	464549	654050		5KM W QUARRYVILLE.ACC.BY LOGG.RD.OFF NORTH HIGHWAY
285	I 2	21I/13-U2	NORT	465033	655143		5KM W QUARRYVILLE.ACC.BY LOGG.RD.OFF NORTH HIGHWAY
286	I 2	21I/13-U2	NORT	465010	655234		6KM NW OF RENOUS. ACC. N OFF RT. 108 ON LOGG. RDS.& FOOT
287	I 1	21I/13-U	NORT	465150	655900		13KM NW OF RENOUS.ACC.OFF LOGG.RDS.NORTH OF RTE.108
301	I 14	21I/14-Z4	NORT	465906	650230		8 KM SW EEL RIVER BRIDGE.PAVED & LOGGING RDS OFF RT117
301 A	I 14	21I/14-Z4	NORT	465955	650450		5KM SW OF EEL RIVER BRIDGE.ACCESS BY ROADS OFF RTE.117
302	I 15	21I/14-Z2	NORT	465745	650436		10KM SW EEL RIVER BRIDGE. ACC.BY RD.&TRAIL SW OFF RT.117
302 A	I 16	21I/14-Z4	NORT	465830	650024		7KM SOUTH OF EEL RIVER BRIDGE.ACCESS BY BOMBARDIER TRAIL
303	I 15	21I/14-Z4	NORT	465648	650436		12KM SW EEL RIVER BRIDGE. ACC.BY RD.&TRAIL SW OFF RT.117

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BOG NO	MAP NO	NTS NO	COUNTY	LAT.	LONG.	BOG NAME	LOCATION AND ACCESS
303 A	I 17	21I/14-Z2	NORT	465700	650136		10 KM S OF EEL RIVER BR.BOMBARDIER TRAILS FM PEAT PLANT
304	I 20	21I/14-Z2	KENT	465530	650400		11KM SSW OF BAIE ST.ANNE. ACC.BY RDS. S FR. EEL R.BRIDGE
304 A	I 17	21I/15-X1	KENT	465634	645654		15 KM SOUTH OF EEL RIVER BRIDGE.ACCESS BY FOOT TRAILS
305	I 20	21I/14-U3	KENT	465424	650530	HELLS GATE PLAIN	17KM N O KOUCHIBOUGUAC. ACC. NE OFF RT.11 AT LAKETON.
306	I 20	21I/14-W4	KENT	465412	650300	BLUE RIDGE PLAIN	11KM N OF KOUCH.ACCESS FROM LAKETON ON RTE.11&LOGG.RD.
308	I 20	21I/14-	KENT	465500	650130		12KM NNW KOUCHIBOUGUAC. ACCESS OFF RTE.11
311	I 23	21I/14-W1	KENT	465154	650500		5KM NE OF LAKETON.ACCESS BY LOGG.RD.&TRAILS OFF RTE.11
311 A	I 22	21I/14-	KENT	464930	650430		3KM N KOUCHIBOUGUAC ON RTE.11, 400 M EAST OF HWY.
312	I 23	21I/14-W2	KENT	465012	650254		5KM N OF KOUCHIBOUGUAC. ACC. E OFF RT. 11 ON LOGG.RDS.
313	I 23	21I/14-W2	KENT	465230	650324		4KM EAST OF LAKE TON. ACCESS BY LOGGING ROADS OFF RTE 11
318	I 12	21I/14-	NORT	465430	652300		12KM S CHATHAM.ACC.OLD RDS S FR NAPAN ON BLACK RIVER
319	I 11	21I/14-R3	NORT	464914	652945		5KM NNW OF COLETTE.ACC.5KM ON RR&.5KM WALK WEST
320	I 20	21I/14-R1	NORT	464718	652920		25KM S OF CHATHAM. ACCESS OFF RT. 126 FROM E.COLLETTE.
323	I 21	21I/14-U3	KENT	465430	645800	CARRIGAN PLAIN	13KM NE OF KOUCH.ON RT.117 AT RIVIERE AU PORTAGE
324 E	I 19	21I/15-X4	KENT	465842	645142		1KM NW OF PTE SAPIN.ACC. FROM ASB PLANT OR FARMER'S RD.
324 N	P 80	21P/02-R1	NORT	470030	645548		3KM SOUTH OF ESCUMINAC.ACCESS BY LOGGING RDS. OFF RTE117
324 W	I 16	21I/14-X3	NORT	465830	645636		6 KM SOUTH OF EEL RIV.BRIDGE.ACCESS FROM T&H PEAT PLANT
337	P 82	21P/02-R2	KENT	470112	645200	P.MOCAUQUE ROND	2 KM NORTH OF ST. CAMILLE. ON SIDE OF ROUTE 117.
337 A	P 82	21P/02-S1	KENT	470124	644954		2 KM EAST OF CAMVILLE.ACCESS BY TRAILS AND ALONG BEACH
338	P 81	21P/02-R4	NORT	470425	644950		LOCATED ON POINT ESCUMINAC; 50KM EAST OF CHATHAM
339	F 80	21P/02-R2	NORT	470206	645430		2 KM NORTH OF ST.CAMILLE.ACCESS ALONG STREAM OFF RT117
340	P 69	21P/03-X2	NORT	471302	652236		4KM NE OF BARTIBOG.ACCESS BY POWER LINES OFF RTE.8
341	P 69	21P/03-X2	NORT	471139	652125		4KM EAST OF BARTIBOG.ACCESS BY LOGG. RD.EAST OF RTE.8
342	P 69	21P/03-X2	NORT	471148	652034		5KM EAST OF BARTIBOG.ACCESS BY LOGG.RD.EAST OF RTE.8
342 A	P 71	21P/03-	NORT	471120	651630		7KM NE BURNT CHURCH. ACCESS LOGGING ROADS
343	P 70	21P/03-V3	NORT	470824	651718		5KM SW OF BARRYVILLE.ACCESS BY MAIN ROAD OFF RTE.11
348	P 77	21P/03-S3	NORT	470424	651618		14KM NE OF CHATHAM AT CHEVAL PT.ACC.BY PAVE RD&1KM WALK
350	P 77	21P/03-S1	NORT	470142	651724		7KM SE OF LOGGIEVILLE.ACC. .2KM WALK ON TRAIL OFF 117
352	P 77	21P/03-S1	NORT	470106	651830		8KM SE OF LOGGIEVILLE ON RTE.117.ACC. .2KM WALK
352 A	P 77	21P/03-S1	NORT	470118	651906		8KM SE OF LOGGIEVILLE ON RTE.117.ACC. .2KM WALK
353	P 71	21P/06-V4	NORT	471024	651100		3KM SW OF BURNT CHURCH.ACC.3KM WALK ALONG THE SHORE.
354	P 79	21P/03-T3	NORT	470206	650556		3KM SW OF BAY DU VIN.ACCESS BY BAY DU VIN RD. AND LOG.RD
356	P 79	21P/03-T2	NORT	470212	650318		3KM WEST OF EEL RIVER BRIDGE.ACCESS BY ROAD & TRAIL
357	P 78	21P/03-S2	NORT	470112	651106		1KM SOUTHEAST OF HEXAN. ACCESS BY WOODS ROAD OFF RTE 117
357 A	P 78	21P/03-S2	NORT	470018	651054		2KM SOUTH OF HEXAN.ACCESS BY ROAD AND BUSH OFF ROUTE 117
358	J 35	21J/01-Z4	SUNB	461430	660415		20KM N OR MINTO;ACCESS N FROM DUFFYS COR. ON RT. 10
359	J 35	21J/01-Z4	SUNB	461330	660415		17KM NORTHOF MINTO.ACCESS NORTH OFF RT.10 AT DUFFYS COR.
360	J 35	21J/01-Z4	SUNB	461330	660240		19KM NORTH OF MINTO.ACCESS NORTH OFF RT.10 AT DUFFYS COR
363	J 34	21J/01-	SUNB	461345	661115		21KM NW OF MINTO.ACC.NORTH SIDE RR TRACKS FROM MINTO
364	J 34	21J/01-Z3	SUNB	461345	660915		21KM NW OF MINTO.ACCESS THROUGH NORTH MINTO & RAILROAD

TABLE: M1: LOCATION DATA

BOG NO	MAP NO	NTS NO	COUNTY	LAT.	LONG.	BOG NAME	LOCATION AND ACCESS
364 A	J 34	21J/01-	SUNB	461300	661000		18KM NW OF MINTO.ACC. N SIDE OF RR TRACKS OUT OF MINTO
365	J 34	21J/01-	SUNB	461300	661030		18KM NW OF MINTO.ACC. N SIDE OF RR TRACKS OUT OF MINTO
367	J 35	21J/01-Z3	SUNB	461445	660630		21KM NORTH OF MINTO.ACCESS NORTH OFF RT.10 AT DUFFY'S CO
368	J 35	21J/01-Z3	SUNB	461415	660530		20KM NORTH OF MINTO.ACCESS NORTH OFF RT.10 AT DUFFYS COR
369	J 33	21J/01-	SUNB	461345	661230		19KM NW MINTO.ACC.SOUTH SIDE OF RR TRACKS FROM MINTO
369 A	J 33	21J/01-	SUNB	461430	661415		20KM NW MINTO.ACC.SOUTH SIDE OF TRACKS FROM MINTO
369 B	J 33	21J/08-	SUNB	461515	661313		20KM NW MINTO.ACC.NORTH SIDE OF RR TRACKS FROM MINTO
370	J 40	21J/01-	SUNB	461230	661330		20KM NW MINTO.ACC.ALONG RR TRACKS OUT FROM MINTO
371	J 40	21J/01-	SUNB	461230	661215		20KM NW MINTO.ACC.RR TRACKS NW OUT OF MINTO
372	J 40	21J/01-	SUNB	461245	661145		20KM NW OF MINTO.ACC.RR TRACKS NW OUT OF MINTO
373	J 40	21J/01-Y2	SUNB	461045	661115		16KM NW OF MINTO.ACCESS THROUGH NORTH MINTO & RAILROAD
373 A	J 40	21J/01-	SUNB	461200	661145		18KM NW OF MINTO.ACC.RR TRACKS OUT OF MINTO
374	J 40	21J/01-	SUNB	461045	661230		18KM WNW OF MINTO.ACC.SOUTH SIDE OF RR TRACKS FROM MINTO
375	J 39	21J/01-	SUNB	461115	661400		14KM NW MINTO.ACC.RTE.8 UPR DURHAM VEAR BROOK RD EAST
376	J 41	21J/01-V2	SUNB	460830	661400		15KM NW OF MINTO.NORTH FROM ALBRIGHTS CORNER FOR 16 KM
376 A	J 45	21J/01-T	SUNB	460635	660910		6KM WNW OF MINTO.ACCESS BY STRIP MINE ROADS N OF MINTO
377	J 31	21J/01-	YORK	461415	662530		16KM ENE OF TAYMOUTH.ACC.LOG.RDS THROUGH ZIONVILLE.
378	J 31	21J/01-	YORK	461355	662440		16KM ENE OF TAYMOUTH ON LOGG.RDS.THROUGH ZIONVILLE
379	J 30	21J/08-	YORK	461350	662815		32KM NNE FRED.ACC.3KM NE OF ZIONVILLE LOGGING RDS.
380	J 30	21J/08-	YORK	461345	662745		32KM NNE FRED.ACC.3KM NE ZIONVILLE LOGGING ROADS
381	J 42	21J/01-	SUNB	460325	662530		13KM E OF PENNIAC.ACC. EAST OFF RTE.628,THEN S ON FOOT
381 A	J 45	21J/01-T2	QUEE	460000	660515		8KM SOUTH OF MINTO.ACCESS BY RT.690 SOUTH FOR 10 KM
382	J 43	21J/01-	SUNB	460315	662250		25KM WEST OF MINTO.ACCESS N OFF RT.10 ON LOGG. RDS.
383	J 43	21J/01-	SUNB	460355	662145		25KM W OF MINTO.ACC. KORTH OFF RT.10 ON LOGG. RDS.
384	J 43	21J/01-	SUNB	460330	662200		25KM W OF MINTO.ACCESS NORTH OFF RT.10 ON ROAD & FOOT
386	J 43	21J/01-	SUNB	460300	662150		25KM W OF MINTO.ACCESS N OFF RT.10 ON RDS& BY FOOT
387	J 43	21J/01-	SUNB	460230	662230		25KM W OF MINTO.ACCESS N OFF RT.10 ON RDS&BY FOOT
388 A	J 37	21J/01-	YORK	461215	662500		30KM NNW FREDERICTON.ACC.LOGG.RDS FROM ZIONVILLE EAST
389	J 44	21J/01-S3	SUNB	460230	661921	BULL PASTURE	17KM W OF MINTO.ACC.ACADIA LOGG.RD. OFF RTE.10
390	J 37	21J/01-	YORK	461130	662415		30KM NNW FRED.ACC.LOG.RDS. FROM ZIONVILLE EAST
391	J 39	21J/01-	SUNB	461000	661530		16KM NW MINTO.ACC. E FR RTE.8 UPR DURHAM BEAR BROOK RD.
391 A	J 45	21J/01-T3	SUNB	460130	660700		1KM NORTH OF NEW ZION ON RT.10.ACCESS BY FOOT FROM RT.10
392	J 38	21J/08-	SUNB	461215	661645		19KM NW MINTO.ACC.ALONG RR TRACKS OUT OF MINTO
392 A	J 38	21J/08-	SUNB	461130	661615		18KM NW MINTO.ACC.RR TRACKS FROM MINTO
393	J 36	21J/01-	YORK	461000	662830		10KM E OF TAYMOUTH.ACCESS ON RDS, N FROM LOWER DURHAM.
393 A	J 36	21J/01-	YORK	461100	662845		11KM EAST OF TAYMOUTH ON DIRT RD. THEN SOUTH ON FOOT
397	I 74	21I/01-V3	WEST	460900	641530		3KM NW ANDERSON SETT.ACC. .3KM WALK E OFF DIRT ROAD
399	I 74	21I/01-V3	WEST	460812	641542		1.5KM W ANDERSON SETT.ACC. .5KM WALK OFF DIRT ROAD
400	I 74	21I/01-V1	WEST	460724	641715		3KM SW ANDERSON SETT.ACC.3KM WALK SW FROM A.SETT.
405	I 74	21I/01-V4	WEST	460906	641336		2KM NE ANDERSON SETT.ACC.1KM WALK OFF RTE.940

TABLE: M1: LOCATION DATA

BOG NO	MAP NO	NTS NO	COUNTY	LAT.	LONG.	BOG NAME	LOCATION AND ACCESS
408	I 75	21I/01-Y2	WEST	461100	641224		3KM SE OF CAP-PELE.ACC.RTE.950 & 1.5KM WALK SOUTH
414	I 76	21I/01-V2	WEST	460600	641218		9KM NW P.ELGIN.ACC.DIRT RD.OFF RTE.15&4KM WALK SW
415	I 76	21I/01-V2	WEST	460606	641118		9KM NW P.ELGIN.ACC.DIRT RD.OFF RTE.15&3KM WALK SW
416	I 76	21I/01-V2	WEST	460530	641130		7KM NW PORT ELGIN.ACC.DIRT RD.OFF RTE.15&3KM WALK SW
417	I 76	21I/01-V1	WEST	460612	641000		7KM NW PORT.ELGIN.ACC.DIRT RD.OFF RTE.15&.3KM WALK WEST
419	I 77	21I/01-W2	WEST	460642	640230		7KM NE PORT ELGIN.ACC.DIRT RD.OFF TCH TO L.SHEMOGUE
423	I 73	21I/01-	WEST	460115	641130		8KM SW PORT ELGIN.ACC.RTE.16 TO COBURD 1ST RD L PAST RR
426	I 73	21I/01-	WEST	460100	640945		7KM SW PORT ELGIN.ACC.RTE.16 TO COBURG 1ST RD L PAST RR
428	I 69	21I/02-T4	WEST	460624	643312		2.5KM E SCOUDOUC.ACC.BY DIRT RD.OFF RTE.132
429	J 21	21J/08-Y2	NORT	462545	661315		15KM SW OF DOAKTOWN.ACCESS BY RTE.123 & LOGGING ROADS
429 A	J 22	21J/08-Z1	NORT	462600	660615		16KM SW OF DOAKTOWN.ACCESS BY RT.123 & LOGGING ROADS
430	J 21	21J/08-Y2	YORK	462345	661030		19KM SW OF DOAKTOWN.ACCESS BY BETTSBURG AND LOGG. RDS.
431	J 25	21J/08-T3	SUNB	461645	661030		24KM SOUTH OF DOAKTOWN.ACCESS BY GRAND LAKE&IRVING RDS.
431 A	J 25	21J/08-	SUNB	461700	660830		28KM WNW CHIPMAN.ACC.RTE.685 NORTH LOGG.RDS WEST
431 B	J 25	21J/08-T3	SUNB	461610	661130		24KM SOUTH OF DOAKTOWN.ACCESS BY GRAND LAKE & IRVING RDS
431 C	J 33	21J/08-	SUNB	461600	661345		22KM NW MINTO.ACC.NORTH SIDE OF RR TRACKS OUT OF MINTO
432	J 26	21J/08-T2	SUNB	461645	660230		22KM NORTH OF MINTO.ACCESS NORTH OFF RT.10 AT DUFFYS COR
432 A	J 26	21J/08-T1	SUNB	461745	660500		20KM NW OF CHIPMAN.ACCESS ON RT.123 & LOGGING ROADS
433	J 26	21J/08-T2	SUNB	461610	660245		22KM NORTH OF MINTO.ACCESS NORTH OFF RT.10 AT DUFFYS COR
434	J 26	21J/01-Z4	SUNB	461430	660315		21KM NORTH OF MINTO.ACCESS NORTH FR.DUFFYS COR.ON RT.10
434 A	J 26	21J/01-Z4	SUNB	463500	660100		21KM N OF MINTO.ACC.NORTH OF RT.10 FROM DUFFYS CORNER
435	J 26	21J/08-T2	SUNB	461610	660200		22KM NORTH OF MINTO.ACCESS NORTH OFF RT.10 AT DUFFYS COR
436	J 26	21J/08-T2	SUNB	461610	660115		22KM NORTH OF MINTO.ACCESS NORTH OFF RT.10 AT DUFFYS COR
437	J 24	21J/08-W2	SUNB	462130	661245		23KM SOUTH OF DOAKTOWN.ACCESS BY RT.123 & LOGGING ROADS
438	J 23	21J/08-S4	SUNB	461900	661300		24KM S OF DOAKTOWN;ACCESS BY GRAND LAKE & IRVING RDS.
438 A	J 23	21J/08-S4	SUNB	461930	661400		24KM SOUTH OF DOAKTOWN.ACCESS BY GRAND LAKE&IRVING RDS.
439	J 23	21J/08-S4	SUNB	461815	661245		25KM SOUTH OF DOAKTOWN.ACCESS BY GRAND LAKE&IRVING RDS.
440	J 25	21J/08-T3	SUNB	461800	660930		24KM SOUTH OF DOAKTOWN.ACCESS BY GRAND LAKE&IRVING RDS.
440 A	J 25	21J/08-	SUNB	461845	660745		28KM WNW CHIPMAN.ACC.RTE.685 NORTH LOGGING RDS WEST
441 A	J 19	21J/08-V1	YORK	462200	661945		13KM SOUTH OF BOIESTOWN.ACCESS SOUTH FROM BOIESTOWN
442	J 20	21J/08-Y1	NORT	462630	661700		5KM SE OF BOIESTOWN.ACCESS ON LOGG.RD. SOUTH OFF RT.8
442 A	J 19	21J/08-V3	YORK	462430	661700		9KM SE OF BOIESTOWN.ACCESS SOUTH FROM BOIES.ON LOGG.RD.
443	J 19	21J/08-V3	YORK	462330	661830		10KM SE OF BOIESTOWN.ACCESS SOUTH FROM BOIES.ON LOGG.RD.
443 A	J 19	21J/08-V3	YORK	462330	662000		9KM SE OF BOIESTOWN.ACCESS SOUTH FROM BOIES.ON LOGG. RD.
444	J 18	21J/08-U3	YORK	462300	661030		9KM EAST OF MCGIVNEY.ACCESS BY LOGG.RD.EAST OFF RT.8
445	J 28	21J/08-R	YORK	461830	662620		11KM SE OF MCGIVNEY.ACC.EAST OFF RT.8ON LOGG.RDS
446	J 28	21J/08-R	YORK	461800	662600		11KM SE OF MCGIVNEY.ACC.EAST OFF RTE.8 ON LOGG.RDS
447	J 28	21J/08-R	YORK	461725	662800		10KM SE OF MCGIVNEY.ACC.EAST OFF RTE.8 ON LOGG.RDS.
448	J 32	21J/08-S1	YORK	461530	661715		25KM SOUTH OF BOIESTOWN.ACCESS SOUTH ON LOGG.RD.OFF RT.8
448 A	J 33	21J/01-	SUNB	461430	661415		20KM NW MINTO.ACC.SOUTH SIDE TRACKS FROM MINTO

TABLE: M1: LOCATION DATA

BOG NO	MAP NO	NTS NO	COUNTY	LAT.	LONG.	BOG NAME	LOCATION AND ACCESS
448 B	J 33	21J/01-	SUNB	461430	661300		18KM NW MINTO.ACC.RIGHT ON TRACKS FROM MINTO
448 C	J 32	21J/08-	YORK	461500	661900		28KM NW MINRO.ACC.RTE.8 LOGG.RDS EAST FROM ZIONVILLE
449	J 32	21J/08-	YORK	461545	662000		29KM NW MINTO.ACC.RTE.8LOGG.RDS EAST FROM ZIONVILLE
449 A	J 38	21J/08-	YORK	461315	662015		23KM NW MINTO.ACC.RR TRACKS OUT OF MINTO 2KM WALK SOUTH
449 B	J 38	21J/08-	SUNB	461300	661945		22KM NW MINTO.ACC.RR TRACKS OUT OF MINTO 2KM WALK SOUTH
449 C	J 38	21J/08-	SUNB	461230	661845		20KM NW MINTO.ACC.RR TRACKS FROM MINTO 3KM WALK SOUTH
450	J 16	21J/09-Z	NORT	464100	660815		24KM WEST OF BLACKVILLE.ACCESS BY DUNGARVON RD. OFF RT.8
451	J 16	21J/09-Z	NORT	464000	660845		26KM WEST OF BLACKVILLE.ACCESS WEST ON DUNGARVON ROAD
456	J 17	21J/09-Z	NORT	464130	660600		24KM WEST OF BLACKVILLE.DUNGARVON&BARTHOLOMEW ROADS
457	J 17	21J/09-Z	NORT	464200	660400		24KM WEST OF BLACKVILLE.DUNGARVON&BARTHOLOMEW RDS
457 A	J 17	21J/09-	NORT	464230	660215		16KM W BLACKVILLE.ACC.RD W FR.BLACKVILLE TO IRVING RDS S
458	J 16	21J/09-Z	NORT	464100	660430		24KM WEST OF BLACKVILLE ON DUNGARVON&BARTHOLOMEW ROADS
459	J 17	21J/09-Z	NORT	464115	660400		24KM WEST OF BLACKVILLE ON DUNGARVON&BARTHOLOMEW ROADS
460	J 16	21J/09-W4	NORT	463915	660515		9KM NORTH OF DOAKTOWN.ACCESS BY LOGG.RDS. NORTH OF RT.8
460 A	J 17	21J/09-W1	NORT	463840	660630		4.5KM NW OF DOAKTOWN.ACC.BY LOGG.RD.OFF RTE.8
461	J 21	21J/09-	NORT	463545	662100		10KM N BOIESTOWN.ACC.BY LOGG. RD OFF RT.8,LUDLOW
462	J 21	21J/09-	NORT	463545	662010		10KM N BOIESTOWN.ACC. BY LOGG RD OFF RT 8 AT LUDLOW
462 A	J 20	21J/09-	NORT	463415	652315		9KM N BOIESTOWN.ACC. BY LOGG RD OFF RT.8 AT LUDLOW
465	G 34	21G/16-	SUNB	455715	661530		5KM NORTH MCGOWANS CORNER NE END INDIAN LAKE
466	G 35	21G/16-	SUNB	455415	662200		25KM E FTON.ACC.RTE.2 TO LAKEVILLE CORNER RTE.670 FRENCH
467	G 34	21G/16-	SUNB	455600	661830		15KM S RTE.2 LAKEVILLE CORNER RTE.670 9KM TO FRENCH L.
468	G 35	21G/16-	SUNB	455410	662030		20KM E FTON.ACC. NORTH OF HWY 2 NORTH OF SHEFFIELD
468 A	G 36	21G/16-	SUNB	455130	661945		10KM E OROMOCTO.ACC.N BABBIT RT.102 BANK OF ST.JOHN R.
469	G 37	21G/16-	QUEE	455230	661330		ALONG TRANS CANADA HWY WEST OF JEMSEG FOR 15 KM
469 A	G 38	21G/16-	QUEE	455415	660845		7KM N JEMSEG FR JEMSEG GO AROUND GRAND L N SCOTCHTOWN
470	G 39	21G/16-	QUEE	455045	660730		JUST NORTH OF JEMSEG OFF RTE.2
470 A	G 38	21G/16-	QUEE	455130	660215		7KM E JEMSEG.ACC.RTE.2 TO WHITES COVE R TURN DEN BROOK
473	G 40	21G/16-	QUEE	454800	660730		NORTH END GRIMROSE ISLAND,SAINT JOHN R.S. OF JEMSEG
474	G 40	21G/16-	QUEE	454545	660715		N OF GRIMROSE ISLAND. ACC. BOAT FROM GAGETWN.
475	G 40	21G/16-	QUEE	454530	660700		GAGETWON FERRY AROUND FOSHAY LAKE RTE.102 BY BOAT
476	G 41	21G/09-	QUEE	454430	660700		MUSQUASH ISLAND.ACCESS BY BOAT FROM RTE.102
479	P 72	21P/04-Y4	NORT	471230	654200		10KM NW OF BEAVERBROOK STA.ACCESS BY LOG.RD.OFF RTE.430
479 A	P 73	21P/04-V4	NORT	470940	654225		15KM N OF NEWCASTLE. ACCESS N OFF RT.430 ON LOGG. RDS.
480	P 72	21P/04-Z3	NORT	471330	653854		11KM NORTH OF BEAVERBROOK STA.ACCESS BY GRAVEL ROAD
480 A	P 83	21P/05-T1	NORT	471540	653940		29KM NORTH OF NEWCASTLE, TELLY RD. & LOGGING ROADS
481	P 72	21P/04-Z3	NORT	471302	653900		10KM NORTH OF BEAVERBROOK STA. ACCESS BY DIRT ROADS
482	P 72	21P/04-Z1	NORT	471156	653948		10KM NW OF BEAVERBROOK STA. ACCESS BY PATHS.
483	P 72	21P/04-Y2	NORT	471130	654050		11KM NW OF BEAVERBROOK STA.ACCESS BY PATHS
484	P 72	21P/04-Z1	NORT	471130	653937		10KM NW OF BEAVERBROOK STA. ACCESS BY PATHS
486	P 73	21P/04-Y2	NORT	471105	654020		20KM NNW OF NEWCASTLE. ACC. N BY LOGG.RD.ALONG RAILRD.

TABLE: M1: LOCATION DATA

BOG NO	MAP NO	NTS NO	COUNTY	LAT.	LONG.	BOG NAME	LOCATION AND ACCESS
486 A	P 73	21P/04-Y2	NORT	471010	654010		8KM WEST OF BEAVERBK.STA.ACCESS BY LOGG.RD.&PATH
486 B	P 73	21P/04-Z1	NORT	471010	653936		7KM WEST OF BEAVERBK.STA.ACCESS BY LOGG. RD&PATH
487	P 73	21P/04-Z1	NORT	471048	653848		7KM NW OF BEAVERBK.STA.ACCESS BY LOGG.RD.FROM THE EAST
488 A	P 73	21P/04-W3	NORT	470815	654140		10KM NE OF TROUT BK.ACCESS BY LOGG.RD. FROM BELLEFOND
489 A	P 73	21P/04-W3	NORT	470830	654115		10KM NE OF TROUT BRK.ACCESS BY LOGG. RD. OFF RTE.340
490	P 73	21P/04-W3	NORT	470956	653919		6KM WEST OF BEAVERBK.STA.ACCESS BY LOGGING ROAD.
490 A	P 74	21P/04-V1	NORT	470535	654534		18.5KM NW NEWCASTLE.5KM SOUTH OF INT.OF RTE.430&435
491	P 76	21P/04-T4	NORT	470352	653329		7.5KM NORTH OF NEWCASTLE.ACCESS BY PATHS FROM PAT'SON ST
491 A	P 76	21P/04-T4	NORT	470426	653353		8KM NORTH OF NEWCASTLE.ACCESS BY PATH FROM BEAVERBK.STA.
492	P 76	21P/04-T4	NORT	470424	653054		6KM FROM DOUGLASTOWN.ACCESS BY DIRT RD.OFF RTE.8
493 A	P 74	21P/04-W3	NORT	470843	653556		15KM N OF NEWCASTLE. ACC. ON LOGG.RDS. ALONG RAILROAD
494	P 75	21P/04-W4	NORT	470900	653342		3KM NE OF BEAVERBROOK STATION.ACCESS BY GRAVEL ROAD.
494 A	P 75	21P/04-W4	NORT	470830	653211		6KM EAST OF BEAVERBK.STA.ACCESS BY LOGG. RD.OFF RE.8
494 B	P 75	21P/04-W4	NORT	470902	653142		6KM EAST OF BEAVERBK.STA.ACCESS BY LOGG. RD. FROM RTE 8
495	P 75	21P/04-W4	NORT	470913	653106		7KM EAST OF BEAVERBROOK STA. ACCESS BY LOGGING ROADS.
496	P 64	21P/05-W3	GLOU	472102	653016		8KM N OF BARTIBOG STA. ACC. W OFF RT.8 ON LOGG. ROADS.
496 A	P 64	21P/05-W1	GLOU	472154	654022		8KM NW OF BARTIBOG STA. ACC. W OFF RT.8 ON LOGG. RDS.
497	P 64	21P/05-W1	GLOU	472114	653636		8KM NORTH OF BARTIBOG STA.ACCESS BY LOGG. RD. OFF RTE 8
497 A	P 65	21P/05-W3	GLOU	472240	653603		10KM N OF BARTIBOG STA. ACC. WEST OFF RT.8 ON LOGG.RDS.
498	P 64	21P/05-T3	GLOU	471938	653756		5KM N OF BARTIBOG STA. ACC. W OFF RT.8 ON RDS,AND ON RR.
502	P 66	21P/05-T3	GLOU	471749	653702		2KM NORTH OF BARTIBOG STA.ACCESS BY LOGGING RDS.
502 A	P 66	21P/05-S2	GLOU	471656	653600		1.5KM E OF BARTIBOG STA.ACC.1.5KM WALK EAST OF STATION
503	P 66	21P/05-T3	GLOU	471845	653606		4KM NE OF BARTIBOG STA.ACCESS BY LOGG.RD.WEST OF RTE.8
503 A	P 65	21P/05-W2	GLOU	472029	653445		6KM NE OF BARTIBOG STA. ACC. WEST OFF RT.8 ON LOGG. RDS.
506 A	P 64	21P/05-S3	GLOU	471900	654722		8KM S OF BATH.MINES. ACC. W OFF RT.8 ONTO RT.360,THEN SW
507	P 63	21P/05-Z2	GLOU	472554	653024		5KM S OF ALLARDVILLE. ACC. WEST OFF RT.8 ON DIRT RD.
507 A	P 62	21P/11-R1	GLOU	473015	652930		3 KM N OF ALLARDVILLE.ACC. IS 1KM WALK E OFF RT.8
508	I 22	21I/14-W1	KENT	465124	650918		1.5 KM WEST OF LAKETON.ACCESS FROM LAKETON OFF RTE 11
510	I 32	21I/14-T1	KENT	464542	650654		10KM E OF ACADIEVILLE.ACC.BY RTE.480&3KM WALK NORTH
511	I 32	21I/14-T1	KENT	464506	650815		9KM E OF ACADIEVILLE.ACC.BY RTE.480&2KM WALK NORTH
512	P 68	21P/06-R1	NORT	471500	652635		10KM NE OF BARTIBOG. ACCESS ALONG LOGG. RD. OFF RTE. 8
513	P 67	21P/06-R1	GLOU	471700	653000		11KM NW OF BARTIBOG.ACCESS FROM RTE.8 ALONG A LOGG. RD.
513 A	P 67	21P/05-T	NORT	471955	653140		20KM N OF NEWCASTLE.ACC.N ON RT.8,THEN W ON LOGG.RDS.
513 B	P 67	21P/05-T	NORT	471845	652755		20KM N OF NEWCASTLE.ACC.N ON RT.8,THEN W ON LOGG.RDS.
514	P 58	21P/07-U1	NORT	472218	650230		6 KM NW OF TABUSINTAC.ACCESS OFF RTE 460 NEAR GAYTHORNE
514 A	P 58	21P/06-W2	NORT	472136	650000		1KM NORTH OF WISHART'S PT. ACCESS OFF RTE.11
515	P 56	21P/07-X4	GLOU	472924	645400		1 KM NE OF SHEILA. ACCESS BY MAIN ROAD OFF ROUTE 11
516	P 57	21P/07-X1	NORT	472530	645530		1KM EAST OF PORTAGE RIVER.ACC.FROM PORTAGE PEAT CO.
517	P 57	21P/07-X2	NORT	472530	645430		1.5KM EAST OF PORTAGE RIVER.ACC.BY DIRT RD.OFF RTE.11
517 A	P 57	21P/07-	GLOU	472700	645430		TRACADIE.ACC.HWY.11,1KM N FROM TRACADIE BEACH ON RIGHT

TABLE: M1: LOCATION DATA

BOG NO	MAP NO	NTS NO	COUNTY	LAT.	LONG.	BOG NAME	LOCATION AND ACCESS
518	P 57	21P/07-X2	NORT	472400	645500		1.5KM EAST OF PORTAGE RIVER.ACC.BY DIRT RD.OFF RT.11
522	P 61	21P/07-U1	NORT	472200	645715		2KM EAST OF BRANTVILLE.ACCESS BY DIRT RD.OFF RTE.11
522 A	P 61	21P/07-U1	NORT	472130	645812		2KM SOUTH OF BRANTVILLE.ACCESS BY DIRT RD.OFF RTE.11
523	P 59	21P/06-R2	NORT	471920	645754		4KM EAST OF TABUSINTAC. ACCESS BY DIRT ROAD OFF RTE.11
524	P 59	21P/07-R3	NORT	471800	645912		2KM SE OF TABUSINTAC. ACCESS BY PAVED RD. OFF RTE.11
525	P 60	21P/06-T2	NORT	471630	650600		1KM EAST OF LOWER NEGUAC.ACCESS BY DIRT RDS.OFF RTE.11
525 A	P 60	21P/06-T2	NORT	471500	650500		ACROSS RTE.11 FROM CHURCH IN NEGUAC
526	P 39	21P/10-Y4	GLOU	474420	644515	HAUT-SHIPPEGAN	IN HAUT-SHIPPEGAN.ACCESS SOUTH FROM MAIN ROADS
527	P 39	21P/10-Y4	GLOU	474400	644300	SHIPPEGAN BOG	1KM SOUTH OF THE CENTRE OF SHIPPEGAN.
528	P 38	21P/10-X4	GLOU	474325	645020	ST-SIMON A BOG	LOCATED AT HAUT ST-SIMON.ACC.OFF RTE.335
528 A	P 38	21P/10-X4	GLOU	474320	645150	ST-SIMON B BOG	LOCATED AT HAUT ST-SIMON.ACC.BY DIRT RD.OFF RTE.335
529	P 38	21P/15-Y3	GLOU	474300	644900	INKERMAN FERRY	8KM SOUTHWEST OF SHIPPEGAN. ACC. BY RTE 345 OFF RTE 113
530	P 40	21P/10-Y1	GLOU	474130	644600	POKEMOUCHE BOG	LOCATED BESIDE RTE.113 IN INKERMAN FERRY.
531	P 50	21P/10-Y1	GLOU	474112	644818		BETWEEN RAILROAD AND RT. 113 IN INKERMAN FERRY.
531 A	P 50	21P/10-X1	GLOU	474120	645512		3KM WEST OF UPPER POKEMOUCHE.ACCESS BY DIRT RD.OFF R350
532	P 41	21P/10-U4	GLOU	473800	645000		15KM SOUTH OF SHIPPEGAN.ACCESS FROM PAVED ROADS E&W.
536	P 53	21P/10-U2	GLOU	473548	645536		8 KM NORTH OF TRACADIE. ACCESS BY DIRT ROAD OFF RTE 11.
537	P 54	21P/10-U2	GLOU	473536	645118		3KM SOUTH OF SIX ROADS.ACCESS BY BUSH AND DIRT RD OFF 11
541	P 55	21P/10-R3	GLOU	473254	645548		3KM NORTH OF TRACADIE. 50 M FROM ROUTE 11.
541 A	P 56	21P/11-T1	GLOU	473100	650724		17KM W OF TRACADIE. ACC. OFF RT.365 AND UPPER TILLEY RD.
542	P 55	21P/10-R2	GLOU	473200	645418		1KM NORTH OF TRACADIE.ACCESS BY FOOT ALONG RR FROM RTE11
544	P 44	21P/11-Y4	GLOU	474406	651348		1.4KM SOUTH OF BLACK ROCK.ACCESS BY DIRT ROAD OFF RTE135
546	P 44	21P/11-Y4	GLOU	474342	651300		2.5KM S BLACK ROCK.ACC.1KM WALK W ON TRAIL OFF RTE.135
547	P 44	21P/11-Y2	GLOU	474224	651330		4.6 KM SE OF BLACK ROCK.ACCESS BY DIRT ROAD OFF RTE 135
548	P 44	21P/11-Z4	GLOU	474348	651012		4.6 KM FROM BLACK ROCK.ACCESS BY DIRT ROAD OFF RTE 135
549	P 47	21P/11-Z4	GLOU	474418	650315		2 KM SW OF BERTRAND. ACCESS BY MAIN ROAD OFF RTE 325.
550	P 47	21P/11-Z4	GLOU	474424	650000		7KM SW OF CARAQUET.ACCESS BY TRAIL OFF DIRT RD FROM RT11
551	P 42	21P/11-X4	GLOU	474354	652018		3 KM SOUTH OF NEW BANDON. ACCESS FROM POWER LINE.
551 A	P 42	21P/12-T4	GLOU	473745	653000		10KM WEST OF BATHURST.ACCESS FROM ROUTE 8
552	P 43	21P/11-V1	GLOU	474245	651800		6 KM SW OF BLACK ROCK.ACCESS BY DIRT ROAD OFF ROUTE 635
553	P 43	21P/11-Y3	GLOU	474254	651554	CARR BARREN	4.8 KM SW OF BLACKROCK. GRAVEL & LOGGING RDS OFF RT 135
553 A	P 43	21P/11-	GLOU	474025	651725		4.9KM SW OF BLACKROCK.ACC.BY LOGG.RDS. S OFF RT135
554	P 51	21P/11-U4	GLOU	473842	652036		4KM SOUTH OF CANOBIE.ACCESS BY LOGGING ROAD WEST OF R340
554 A	P 51	21P/11-U4	GLOU	473812	652142		4KM SOUTH OF CANOBIE.ACCESS BY LOGGING ROADS OFF RTE 340
555	P 51	21P/11-U3	GLOU	473912	651942		4KM SW OF CANOBIE.ACCESS BY LOGGING ROADS OFF RTE 340.
559	P 52	21P/11-U2	GLOU	473536	652036		ACCESS BY LOGGING ROADS OFF RTE 340. 10 KM SE OF CANOBIE
559 A	P 52	21P/11-R4	GLOU	473348	652036		3KM NORTH OF BUTTE-D'OR.ACCESS BY LOGGING ROADS OFF R360
561	P 29	21P/14-T3	GLOU	474815	650900	GRAND-ANSE BOG	3KM SE GRAND-ANSE. ACCESS OFF RTE.11.
562	P 30	21P/14-T4	GLOU	474915	650215	MAISONNETTE BOG	SITUATED IN MAISSONNETTE. ACCESS FR.PAVED ROADS.
563	P 45	21P/14-S2	GLOU	474700	651400		4 KM SW OF GRAND ANSE. ACCESS FROM RTE 11 OR RLR TRACKS

TABLE: M1: LOCATION DATA

BOG NO	MAP NO	NTS NO	COUNTY	LAT.	LONG.	BOG NAME	LOCATION AND ACCESS
564	P 46	21P/14-T1	GLOU	474500	650748		7KM SE OF GRANDE-ANSE.ACCESS BY GRAVEL RD.
565 A	P 45	21P/14-S2	GLOU	474518	651112		2 KM FROM BLACK ROCK.ACCESS BY LOGGING ROAD FROM RTE 135
566	P 46	21P/14-T1	GLOU	474506	650712		8KM S OF GRANDE ANSE. ACC. ON RDS. BETW. RT.11&RT.135.
567	P 33	21P/15-W2	GLOU	475130	643336		3KM SE OF LITTLE SHIPPEGAN. ACCESS EAST OFF RT.113.
568	P 33	21P/15-W2	GLOU	475000	643400	COUTEAU ROAD BOG	IN COUTEAU ROAD ON LAMEQUE ISL.ACCESS EAST OFF RT.113.
569	P 33	21P/15-W2	GLOU	475154	643054		LOCATED IN PIGEON HILL ON LAMEQUE ISLAND.
570	P 33	21P/15-W2	GLOU	475040	643200		1 KM SOUTH OF PIGEON HILL. ROADS ON ALL SIDES OF BOG.
574	P 35	21P/15-T4	GLOU	474900	643300		.2 KM NW OF CAP BATEAU. ACCESS BY FOOT FROM CAP BATEAU.
575	P 35	21P/15-T4	GLOU	474812	643318		2 KM NORTH OF ST.MARIE SUR MER.A PAVED HWY CROSSES BOG.
575 A	P 35	21P/15-T4	GLOU	474806	643348		2 KM NORTH OF STE.MARIE SUR MER. 200 M FROM MAIN ROAD
576	P 35	21P/15-T4	GLOU	474800	643530	SAINTE MARIE BOG	LAMEQUE ISLAND,4KM EAST OF HAUT LAMEQUE ON GOOD ROADS
577	P 34	21P/15-S2	GLOU	475000	644054		1 KM NE OF PETITE LAMEQUE. ACCESS BY DIRT ROAD.
578	P 34	21P/15-T1	GLOU	475000	643842		2 KM NORTH OF PETITE LAMEQUE. ACCESS BY BUSH ROAD.
578 A	P 32	21P/15-T1	GLOU	475100	643718		4 KM NORTH OF PETITE LAMEQUE. ACCESS BY BUSH ROAD.
579	P 32	21P/15-W1	GLOU	475022	643600		7KM NE OF LAMEQUE, ON ROAD TO MISCOU FERRY.
579 A	P 32	21P/15-W1	GLOU	475200	643545		6KM NE OF LAMEQUE.ACC.BY RTE.113 FOR 6KM&.2KM WALK
580	P 34	21P/15-W1	GLOU	474930	643745	TOUR LAMEQUE	4KM NORTH OF LAMEQUE, JUST WEST OF RT. 113.
581	P 27	21P/15-Z4	GLOU	480000	643036		NORTHERN PART OF MISCOU ISL.RTE.113 FOLLOWS MARGINS NOW.
582	P 28	21P/15-Z2	GLOU	475700	643042		CENTRAL PART OF MISCOU ISLAND. RTE. 113 CROSSES BOG
583	P 28	21P/15-Z4	GLOU	475700	643400		1KM NW OF MISCOU CENTRE. ACCESS BY DIRT RD. OFF RTE.113
585	P 28	21P/15-	GLOU	475615	643515		WEST COAST OF MISCOU IS.N OF MISCOU HARBOUR RTE.113
587	P 28	21P/15-	GLOU	475620	643245		MISCOU ISL.ACC.RD TO EAST,1KM N MISCOU CENTRE OFF RT 113
588	P 28	21P/15-	GLOU	475545	643230		MISCOU ISL.ACC.RD TO EAST,1KM N MISCOU CENTRE OFF RT 113
589	P 28	21P/15-	GLOU	475530	643245		MISCOU ISL.ACC.RD TO EAST,1KM N MISCOU CENTRE OFF RT 113
589 A	P 28	21P/16-	GLOU	475545	642930		MISCOU ISLAND.ACC.EAST COAST JUST SOUTH WILSON PT.
590	P 32	21P/15-W3	GLOU	475300	643800		3KM WEST OF LITTLE SHIPPEGAN.ACCESS BY DIRT ROAD
591	P 36	21P/15-T1	GLOU	474600	643900	LAMEQUE BOG	ON LAMEQUE ISL. ACCESS EAST OFF RT.113 JUST AFTER HARB.
592	P 37	21P/15-T1	GLOU	474600	643600		SITUATED 6KM EAST OF LAMEQUE.ACCESS BY PAVED ROAD RT117
592 A	P 36	21P/10-Z3	GLOU	474400	643845		4KM EAST OF SHIPPEGAN.ACCESS BY PAVED RD. OFF RTE.11
593	P 48	21P/15-R1	GLOU	474648	645554		2KM SOUTH OF CARAQUET.ACCESS BY DIRT RD. OFF RTE.11
597	P 48	21P/15-R3	GLOU	474554	645718		2 KM SOUTH OF CARAQUET.ACCESS BY DIRT ROAD OFF RTE. 11
598	P 49	21P/15-R4	GLOU	474712	645136		3 KM SE OF CARAQUET.ACCESS BY DIRT ROAD OFF RTE. 330
599	P 49	21P/15-S1	GLOU	474654	644930		9KM EAST OF CARAQUET.ACC.BY RD.OFF RTE.145 AT B-CARAQUET
600	P 31	21P/15-S3	GLOU	474900	644700	POKESUDIE BOG	ON POKESUDIE ISLAND. ACCESS ON RTE.330, THEN NORTH.
600 A	P 31	21P/15-S3	GLOU	474730	654600		2KM SOUTH OF POKESUDIE.ACCESS FROM RTE.145
601	I 78	21I/05-R3	SUNB	462030	655600		18KM NORTH OF CHIPMAN.ACCESS BY RT.123 & LOGGING ROAD
606	P 82	21P/02-R2	KENT	470018	644906		1.5KM EAST OF ST. CAMILLE. ACCESS BY PATHS OR OVER BEACH
608 A	P 65	21P/05-T2	GLOU	471944	653155		7KM NE OF BARTIBOG STA. ACC. WEST OFF RT. 8 ON LOGG. RDS
609	P 62	21P/05-Z3	GLOU	472925	653825		11KM W ALLARDVILLE.ACC.LOGG.RD.&1KM WALK OFF RTE.8
610	P 62	21P/05-Z3	GLOU	472905	653927		14KM S OF BATHURST. ACC. S ON ROADS &TRAILS ALONG RAILRD

TABLE: M1: LOCATION DATA

BOG NO	MAP NO	NTS NO	COUNTY	LAT.	LONG.	BOG NAME	LOCATION AND ACCESS
611	P 32	21P/05-X2	GLOU	472739	653930		4KM NW RD PINE.ACC.3KM WALK N ON LOGG.RD.OFF RTE.360
612	P 62	21P/05-Z3	GLOU	472650	654000		12KM WSW OF ALLARDVILLE. ACC. WEST ON RT.360,THEN NORTH
615	G 76	21G/01-	SAIN	451130	661500		6KM W ST.JOHN.ACC.RTE.1 WHERE POWERLINE MEET CROSS RDS.
618	G 74	21G/02-	CHAR	451200	662800		30KM W ST.JOHN.ACC.RTE.1,2KM ON 7MILE LAKE ROAD NORTH
619	G 74	21G/02-	CHAR	451100	662845		35KM SW ST.JOHN.ACC.RTE.1,1KM NORTH ON 7MILE LAKE RD.
620	G 74	21G/02-	CHAR	451030	662815		35KM SW ST.JOHN.ACC.RTE.1,1KM N ON 7MILE LAKE ROAD
621	G 75	21G/01-	SAIN	450930	662530		30KM W ST.JOHN.ACC.RD TO PT.LEPREAU 1KM S WALK RR 1KM
622	G 75	21G/01-	SAIN	450900	662615		35KM SW ST.JOHN.ACC.FROM RTE.1,1KM RTE.790 S OF LEPREAU
623	G 76	21G/01-	SAIN	450850	662245		47KM W SAINT JOHN.ACC.FROM RTE.1,10KM RTE.790 DUMP RD.
625	G 76	21G/01-	SAIN	450915	662000		25KM W SAINT JOHN.ACC.OFF.RTE.1,7KM ON RTE.790 ON NBPG
627	G 76	21G/01-	SAIN	450915	661915		25KM W SAINT JOHN.ACC.7KM OFF RTE.1 ON RTE.790 NBPG
628	G 76	21G/01-	SAIN	450930	661800		25KM SW SAINT JOHN.ACC.RTE.1 SOUTH OF MUSQUASH
629	G 76	21G/01-	SAIN	450845	661815		25KM SW SAINT JOHN FROM RTE.1,7KM ON RTE.790 POWERLINE
631	G 72	21G/07-	CHAR	450945	663815		24KM E ST.GEORGE.ACC.RTE.780 BEFORE POCOLOGAN R.ROUGH RD
632	G 72	21G/07-	CHAR	450910	663715		15KM E ST.GEORGE.ACC.RTE.780 1KM ON RD.PAST POCOLOGAN
633	G 73	21G/02-	CHAR	451000	663430		15KM ENE ST.GEORGE.ACC.RTE.780 DIRT RD JUST AFTER RR CR.
634	G 73	21G/02-	CHAR	451215	663400		25KM E LAKE UTOPIA.ACC. RTE.780 RD L NEW R.STATION OLD R
635	G 73	21G/02-	CHAR	451210	663345		25KM E LAKE UTOPIA.ACC.RTE.780 N NEW R.STA.1ST RD ON L
636	G 73	21G/02-	CHAR	451215	663200		5KM NW LEPREAU.ACC.RTE.780 FR LEPREAU DIRT RD N NEW R.ST
638	G 73	21G/07-	CHAR	450845	663030		4KM SOUTHEAST OF LEPREAU.ACCESS ON HIGHWAY 1
639	G 71	21G/02-	CHAR	450515	664000		50KM WSW SAINT JOHN RTE.1 TO SEELEY COVE RD 4KM BOG ON R
641	G 62	21G/03-	CHAR	451245	672230		8KM WNW OF ST.STEPHEN ON RT.725,THEN NE ON LOGG. RDS.
642	G 62	21G/03-	CHAR	451245	672125		6KM NW OF ST.STEPHEN.ACCESS 0.8KM NW FROM BARTER SETT.
643	G 62	21G/03-	CHAR	451355	672110		9KM NW OF ST.STEPHEN ON RT.735,THEN SW ON .OGGING ROADS
644	G 62	21G/03-	CHAR	451407	672140		8KM NW OF ST.STEPHEN ON RT.735,THEN SW ON LOGGING ROADS
645	G 62	21G/03-Y3	CHAR	451430	671830		ABOUT 4KM NORTH OF ST.STEPHEN,ALONG RTE. 740
646	G 56	21G/03-	CHAR	452145	671400		20KM N ST.STEPHEN.ACC.RTS.750 OR 755 W OF HONEYDALE
648	G 63	21G/06-	CHAR	452800	670700		34KM N ST.STEPHEN.ACC.RT.3 BOG BY SIDE OF ROAD
649	G 63	21G/06-	CHAR	452315	670315		25KM NE ST.STEPHEN.ACC.RTE.770 SORREL RIDGE
650	G 56	21G/06-	CHAR	452245	671045		NEAR HONEYDALE,23KM N OF ST.STEPHEN.ACC.WEST OFF RT.765
651	G 63	21G/06-	CHAR	452245	670100		25KM NE ST.STEPHEN.ACC.RT 770 BET.SORREL&PLEASANT RIDGE
652	G 53	21G/06-Y4	CHAR	452800	671830		ABOUT 16 KM SE OF ST.CROIX, ALONG RTE.630
652 A	G 53	21G/06-Y3	CHAR	453000	671500		16KM SE OF ST.CROIX OFF RTE.630.ACCESS BY LOGGING ROADS
653	G 61	21G/06-S1	CHAR	451815	671800		15KM NORTH OF ST.STEPHEN, WEST OF HWY #3
654	G 55	21G/06-V3	CHAR	452500	671700		20KM NORTH OF ST.STEPHEN OFF HWY#3,ALONG GOAT BK.ROAD
655	G 60	21G/06-	CHAR	451615	672130		10KM NW OF ST.STEPHEN.ACCESS WEST OFF RT.740
656	G 57	21G/06-	CHAR	452000	672430		15KM N ST.STEPHEN.ACC.RT.740 LEFT FORK TO KING BROOK L
657	G 60	21G/06-	CHAR	451645	672125		12KM NW OF ST.STEPHEN.ACCESS WEST OFF RT.740
658	G 54	21G/06-	CHAR	452355	672200		23KM SOUTH OF MCADAM.ACCESS WEST ON RTE.745 OFF RTE.3
660	G 59	21G/06-R1	CHAR	451630	672630		19KM NW OF ST.STEPHEN ON GLEASON RD.3KM WALK IN WOODS

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BOG NO	MAP NO	NTS NO	COUNTY	LAT.	LONG.	BOG NAME	LOCATION AND ACCESS
661	G 54	21G/06-X2	CHAR	452545	672200		21KM SOUTH OF ST.CROIX,OFF RTE.630 BY LOGGING ROAD
662	G 54	21G/06-	CHAR	452600	671845		30KM N ST.STEPHEN.ACC.RTE.3,8KM ON GOAT BROOK ROAD
664	G 59	21G/07-	CHAR	451745	663300		35KM NW SAINT JOHN.ACC.15KM N FR RTE.1 7 MILE LAKE RD
667	G 59	21G/07-	CHAR	452315	663645		10KM LAKE UTOPIA.ACC.LEPREAU GAMR RESERVE RD 2KM L ORO L
667 A	G 66	21G/07-	CHAR	452715	664600		30KM N ST.GEORGE.ACC.MT.PLEASANT RD. NEW CLEAR CUTS
667 B	G 66	21G/07-	CHAR	452645	664444		30KM N ST.GEORGE.ACC.NEW CLEAR CUTS E MT.PLEASANT RD.
667 C	G 66	21G/07-	CHAR	422545	664245		30KM N ST.GEORGE.ACC.NEW CLEAR CUTS E MT.PLEASANT RD.
668	G 69	21G/07-	CHAR	452130	663810		30KM NE ST.GEORGE.ACC.20KM N RTE.1,7M LAKE RD VICTORIA L
669	G 69	21G/07-	CHAR	452115	663730		30KM NE ST.GEORGE.ACC.20KM N RTE.1 BELOW VICTORIA LAKE
670	G 69	21G/07-	CHAR	452030	663830		30KM NE ST.GEORGE.ACC.20KM N RTE.1,7MI LAKE RD.VICTORIA
672 A	G 65	21G/07-	CHAR	452530	665500		36KM N ST.GEORGE.ACC.RTE.770,7KM IN TO E BR KEDRON STR.
672 B	G 65	21G/07-	CHAR	452730	665545		35KM N ST.GEORGE.ACC.RTE.770 SIDE RD 9KM TO E BR KEDRON
678	G 67	21G/07-	CHAR	451930	665445		24KM N ST.GEORGE.ACC.RTE.770 NEAR MCDOUGALL OUTLET
679	G 67	21G/07-	CHAR	452015	665330		20KM N ST.GEORGE.ACC.770,2KM WALK FROM RD.
680	G 67	21G/07-	CHAR	452015	665245		20KM N ST.GEORGE.ACC.770,1KM WALK FROM ROAD
681	G 69	21G/07-	CHAR	452115	664715		30KM N ST.GEORGE.ACC.MT.PLEASANT RD. RD TO MCDOUGALL L.
684	G 68	21G/07-	CHAR	451530	665030		15KM NORTH OF SAINT GEORGE. ACCESS RTE. 770
684 A	G 68	21G/07-	CHAR	451445	665330		15KM NW ST.GEORGE.ACC.DIRT ROAD OFF RTE.770
688	G 70	21G/08-	KING	452245	661515		16KM N SAINT JOHN.ACC.RTE.7 W SIDE OF WESTFIELD CAUSEWAY
689 A	G 74	21G/08-	KING	451500	662415		30KM W ST.JOHN.ACC.DIRT RD.8KM N FROM RTE.1,1.2KM WALK
690	G 43	21G/09-	QUEE	453815	660615		2KM N HAMPSTEAD.ACC.BY FOOT EAST OF RTE.102
691	G 43	21G/09-	QUEE	453900	660600		2KM NORTH HAMPSTEAD.ACC.BY BOAT FROM HAMPSTEAD
692	G 42	21G/09-	QUEE	453930	660530		2KM N HAMPSTEAD ON LONG ISLAND.ACC.BY BOAT TO BOG
693	G 42	21G/09-	QUEE	454130	660545		LONG ISLAND IN SAINT JOHN RIVER ACC.BOAT FROM RTE..102
700	G 27	21G/10-	SUNB	454315	664200		5KM NW TRACY.ACC.LOGG.RD 2KM N TRACY WALK LAST 1 KM
703	G 27	21G/10-	SUNB	454330	664120		5KM NW TRACY.ACC.LOGG.RD 2KM N TRACY WALK LAST 1KM
703 A	G 27	21G/10-	SUNB	454430	663800		11KM NW FTON JCT.ACC.ON RT.101, 2KM E TRACYVILLE
707	G 21	21G/10-	YORK	454215	665645		6KM SE OF HARVEY.ACCESS OFF RT.645 AT CORK OR RAILROAD.
707 A	G 21	21G/10-	YORK	454130	665915		5KM SE HARVEY.ACC.3KM S ON OROMOCTO LAKE RD THEN RD EAST
708	G 26	-21G/10-	YORK	454415	664615		10KM FROM TRACY.ACC.RTE.645 TURN RIGHT ON LOG.RD. 5 KM
708 A	G 26	21G/10-	YORK	454545	674345		6KM NW TRACYVILLE ACC.RTE.101 LOG.RD. ALONG RUSAGONIS R.
709	G 24	21G/10-	YORK	454315	665415		23KM W OF FTON JCT.ACCESS RTE.645 5KM N OF CORK STA.
710	G 24	21G/10-	YORK	454245	665230		21KM W OF FTONJCT.ACCESS RTE.645 LOG RD FR ROOTH 5KM
711	G 24	21G/10-	YORK	454330	665200		20KM W OF FTONJCT.ACCESS RTE.645 LOG RD FR ROOTH YOHO
712	G 24	21G/10-	YORK	454300	665030		18KM W OF FTON JCT.ACCESS LOG.RD. OFF RTE.645 AT ROOTH
713	G 23	21G/10-	YORK	453810	675815		12KM S HARVEY STA.ACCESS DIRT RD.THEN LOG. TO E RTE. 3
716	G 23	21G/10-	YORK	453625	665545		15KM SSE HARVEY STA.ACC.BY BOAT TO E SIDE OROMOCTO LAKE
717	G 64	21G/10-	SUNB	453000	665430		35KM SW FTON JCT.ACC.SECONDARY AND DIRT RDS FROM TRACY
717 A	G 64	21G/07-	CHAR	453000	665100		30KM SW FTON JCT.ACC.TRACY RD 6KM L 12KM L 9KM R WALK 2K
718	G 22	21G/10-	YORK	453930	665800		8KM SSE HARVEY. ACCESS LOG.RDS. OFF TWEEDSIDE ROAD

TABLE: M1: LOCATION DATA

BOG NO	MAP NO	NTS NO	COUNTY	LAT.	LONG.	BOG NAME	LOCATION AND ACCESS
718 A	G 18	21G/11-	YORK	454120	670200		5KM SOUTHWEST OF HARVEY STATION ALONG HIGHWAY NO. 3
722	G 65	21G/10-	YORK	453045	665915		6KM S OF TRACY.ACC.MT.PLEASANT RD.LITTLE LAKE RD 2.6KM
723	G 64	21G/10-	SUNB	453200	665330		33KM ESE MCADAM.ACC.RTE.770 SE OFF RTE.3 LOGG.RD. NORTH
723 A	G 25	21G/10-	SUNB	453600	664300		10KM SW FRED JCT.ACC.DIAMOND SQUARE RD TO NEW LOGG.RD.
723 B	G 25	21G/10-	SUNB	453515	664245		10KM SW FRED JCT.ACC.DIAMOND SQUARE RD TO NEW LOGG.RD.
723 C	G 25	21G/10-	SUNB	453645	664415		12KM SW FRED JCT.ACC.DIAMOND SQUARE RD TO NEW LOGG.RD.
724	G 45	21G/11-	YORK	454115	671230		12KM NE MCADAM.ACC. RR TRACKS NE FROM MCADAM MAGAGUADAV.
725	G 49	21G/11-	YORK	453400	671230		10KM ESE MCADAM.ACC.RTE.4,3KM ON DUMP RD.2KM WALK TO BOG
726	G 52	21G/11-	YORK	453300	671115		11KM SE MCADAM.ACC.FROM RTE.3 LOG.RD. JUST S OF AIRSTRIP
727	G 19	21G/11-	YORK	454420	670435		JUST W OF 2ND HARVEY LAKE.ACCESS N OFF RR OR OVER LAKE
728	G 19	21G/11-	YORK	454520	670415		NW BORDER OF 2ND HARVEY LAKE.ACCESS N OFF RR OR BY LAKE
729	G 19	21G/11-	YORK	454405	670230		SE OF HARVEY LAKE. ACCESS NORTH OFF RD, WEST OF HARVEY
729 A	G 19	21G/11-	YORK	454330	670315		ON SOUTH BORDER OF 2ND HARVEY LAKE. ACCESS N OFF RAILRD.
731	G 18	21G/11-	YORK	454300	670645		3KM NE PRINCE WILLIAM STA.ACC. RD. NORTH OFF RTE.635
733	G 18	21G/11-	YORK	454315	670545		3KM NE PRINCE WILLIAM STA.ACCESS RD.NORTH OFF RTE.635
736	G 52	21G/11-S2	YORK	453145	671215	STEPHENSON HEATH	9KM WEST OF BROCKWAY,OFF HWY.3 ON LOGGING ROAD.
737	G 45	21G/11-	YORK	453955	671515		2KM SW MAGAGUADAVIC LAKE.ACCESS LOGG. RD. OFF RTE.4
738	G 45	21G/11-	YORK	453845	671530		5KM E MCADAM.ACC.RTE.4 FIRST L RD TO RR WALK TRACKS
738 A	G 46	21G/11-	YORK	453830	671630		5KM E MCADAM.ACC.RTE.4 FIRST RD ON L TO RR WALK TRACKS
740	G 10	21G/11-	YORK	454400	672115		15KM N OF MCADAM ACC. LOGG. RD. OFF RTE.630
742	G 10	21G/11-	YORK	454200	672030		12KM N OF MCADAM.ACC.LOGGING RD OFF RTE.630
744	G 46	21G/11-	YORK	453800	671830		5KM N MCADAM. ACC. RR TRACKS N FROM MCADAM NEAR FOSTER L
744 A	G 46	21G/13-	YORK	453700	671830		1.5KM NORTH OF MCADAM.ACCESS BY RR TRACK
745	G 44	21G/11-	YORK	453830	672430		9KM NE OF MCADAM.ACCESS BY RTE.630 AND LOGG.RDS.
749	G 50	21G/11-R2	YORK	453000	672500		8KM SOUTH OF ST.CROIX.ACCESS BY LOGG.RD. FROM ST.CROIX
750	G 10	21G/11-	YORK	454300	672400		12KM NNW OF MCADAM.ACC.LOGG.RD OFF RTE.630
751	G 47	21G/11-	YORK	453545	672545		13KM WNW MCADAM.ACC.WEST ON RTE.4 THEN 7KM ON RTE.630 N
753	G 49	21G/11-	YORK	453430	671600		3KM SE MCADAM.ACC.FROM RTE.4 TAKE DUMP RD PAST AIRSTRIP
758	G 48	21G/11-R4	YORK	453200	671900		8KM SE OF ST.CROIX ON RTE.630,3KM WALK IN WOODS
758 A	G 51	21G/11-S1	YORK	453100	671545		12KM SOUTH OF MCADAM ALONG RAILROAD.ACCESS BY TRACKS
759	G 48	21G/11-R4	YORK	453200	672100		6KM EAST OF ST.CROIX.ACCESS BY LOGGING RD. OFF RT. 4
762	G 48	21G/11-B3	YORK	453330	672445		3KM SOUTH OF ST.CROIX.ACCESS BY LOGGING RD.FROM ST.CROIX
763	G 48	21G/11-R3	YORK	453245	672430		3KM SOUTH OF ST.CROIX.ACCESS BY LOGGING RD.FROM ST.CROIX
765	G 50	21G/11-R2	YORK	453115	672230		8KM SE OF ST.CROIX OFF RTE.630,1KM WALK THROUGH WOODS
766 A	G 2	21G/14-	YORK	455730	674015		9KM WSW BENTON.ACC.NW BENTON TO IVY RD S ON RTE.540 7KM
767	G 1	21G/13-Z3	YORK	455906	673812		2KM SW BENTON.ACC. RDS. S&W FROM BENTON
767 A	G 1	21J/04-S2	CARL	460040	674030		14KM W MEDUCTIC. ACC. BY DUGAN RD. OFF TCH.
767 B	G 1	21G/14-	YORK	455845	674100		7KM SWS BENTON.ACC.NW BENTON TO IVY RD S ON RTE.540 L57
768	G 5	21G/14-	YORK	455130	674430		20KM WSW CANTERBURY.ACC.RTE.122 RTE.540 N 2KM RD ON L 2K
769	G 5	21G/14-	YORK	455030	674615		23KM WSW CANTERBURY.ACC.RTE.122 RTE.540 N 2KM RD ON L 4K

TABLE: M1: LOCATION DATA

BOG NO	MAP NO	NTS NO	COUNTY	LAT.	LONG.	BOG NAME	LOCATION AND ACCESS
770	G 4	21G/14-	YORK	455230	673800		14KM SW MEDUCTIC.ACC.RTE.122 CANTERBURY W HARTIN SET 6KM
770 A	G 4	21G/14-	YORK	455300	674015		18KM SW MEDUCTIC.ACC.RTE.540 TO MAXWELL RD SE BOG ON L
771	G 4	21G/14-	YORK	455245	674100		19KM SW MEDUCTIC.ACC.RTE.540 TO MAXWELL RD.SE BOG ON L
772	G 2	21G/14-	YORK	455600	674015		5KM SW BENTON.ACC. RD S FROM BENTON BOG TO WEST OF RD.
772 A	G 2	21G/14-	YORK	455500	673630		12KM WNW CANTERBURY.ACC. W 3KM PAST HARTIN SETT. N SIDE
773	G 3	21G/13-	YORK	455545	674330		20KM W CANTERBURY.ACC.RD DUE W OF CANTERBURY HIT RT.540
774	G 3	21G/13-	YORK	455415	674330		20KM W CANTERBURY.ACC.RD.DUE W OF CANTERBURY TO 540
775	G 6	21G/14-	YORK	454645	673700		17KM WSW CANTERBURY.ACC.122 W LOG.RD.TO S END 2ND EEL
775 A	G 5	21G/13-	YORK	454630	674650		4KM SW FOSTERVILLE.ACC.BY DIRT RD.OFF RTE.122
776	G 13	21G/14-	YORK	455100	670445		2KM NORTH LAKE GEORGE. ACCESS OFF RTE. 636
778	G 11	21G/14-	YORK	455845	670530	PARENT BOG	11KM SE OF NACKAWIC.ACCESS NORTH OFF RT.105 ON OLD RDS.
779	G 12	21G/14-	YORK	455515	671230		4KM SOUTHWEST POKIOK. ACCESS ROAD FROM POKIOK
779 A	G 12	21G/14-	YORK	455430	671030		6KM SW POKIOK. ACCESS ROADS FROM POKIOK
781	G 14	21G/14-	YORK	455000	671230		15KM S OF POKIOK.ACC. RD.OFF RTE.635 AT BLANEY RIDGE
782	G 15	21G/14-	YORK	454645	671230		15KM WNW HARVEY.ACC.RTE.635 SIDE RD N END MAGAGUADAVIC L
783	G 14	21G/14-	YORK	454930	670930		15KM SOUTH OF POKIOK. ACCESS DIRT ROAD OFF RTE.635
784	G 13	21G/14-	YORK	455120	670915		6KM WEST OF POKIOK.ACCESS LOGG.RDS. OFF RTE.635
784 A	G 14	21G/14-	YORK	455045	671115		8KM SW LOWER POKIOK.ACCESS LOGG.RDS OFF RTE.635
785	G 13	21G/14-	YORK	455205	670715		3KM WEST OF POKIOK.ACCESS LOGG. RDS FROM POKIOK
785 A	G 12	21G/14-	YORK	455330	670715		3KM W OF POKIOK SETTLEMENT.ACCESS LOG.RDS FROM POKIOK
785 B	G 13	21G/14-	YORK	455120	670800		2KM WEST OF LOWER POKIOK.ACCESS LOGG.RD. OFF RTE.635
786	G 16	21G/14-	YORK	454815	670745		13KM SW PRINCE WILLIAM.ACCESS RD.EAST OFF RTE.635
790	G 17	21G/14-	YORK	454830	670515		2KM WEST OF LAKE GEORGE.ACCESS 10 KM N HARVEY WEST
791	G 17	21G/14-	YORK	454800	670415		1KM SW OF LAKE GEORGE.ACCESS RD.OFF RTE.636 WEST
791 A	G 17	21G/14-	YORK	455000	670345		NW SHORE LAKE GEORGE.ACCESS OFF RTE. 635
792	G 16	21G/14-	YORK	454645	670715		17KM SW PRINCE WILLIAM.ACCESS LOG.RDS. EAST OFF RTE.635
793 A	G 16	21G/14-	YORK	454630	670900		18KM SW PRINCE WILLIAM.ACCESS LOGG.RDS.EAST OFF RTE.635
794	G 16	21G/14-	YORK	454530	670545		17KM SW PRINCE WILLIAM.ACCESS LOGG.RDS. WEST OFF RTE.635
794 A	G 16	21G/14-	YORK	454630	670520		17KM SW PRINCE WILLIAM.ACC.LOGG.RDS. W OFF RTE.636
795	G 19	21G/14-	YORK	454520	670030		ON NE BORDER OF HARVEY LAKE. ACCESS OFF RT. 636
795 A	G 19	21G/14-	YORK	454620	670130		1KM NE OF HARVEY LAKE. ACCESS EAST OFF RT. 636
796	G 8	21G/14-	YORK	455100	672300		10KM S MEDUCTIC.ACC.RTE.2 TO RITCHIE CHARLIE L RD 10KM
797	G 8	21G/14-	YORK	455019	672115		7KM SE CANTERBURY.ACC.LOGG.RDS SE CANTERBURY
798	G 8	21G/14-	YORK	455115	672015		7KM ESE CANTERBURY.ACC.LOGG.RDS SE CANTERBURY
798 A	G 8	21G/14-	YORK	455300	671830		7KM E CANTERBURY.ACC.LOGG.RDS EAST OF CANTERBURY
799	G 8	21G/14-	YORK	455000	671945		8KM SE CANTERBURY.ACC.LOG.RDS SE CANTERBURY SHOGOMOC
802	G 9	21G/14-	YORK	454630	672245		20KM N MCADAM.ACC.10KM RT.630 LOG RD TO TRACKS N 2KM
803	G 9	21G/14-	YORK	454645	672130		20KM N MCADAM.ACC.10KM RTE.630 N LOG.RD. TO TRACKS N 2KM
804	G 30	21G/15-	SUNB	454630	663700		13KM N FTON JCT.ACC.POST RD FR FTON JCT.TO PUBLIC DUMP
804 A	G 30	21G/15-	SUNB	454600	663815		15KM N FTON JCT.ACC.15KM ON POST RD. FROM FTON JCT.

TABLE: M1: LOCATION DATA

BOG NO	MAP NO	NTS NO	COUNTY	LAT.	LONG.	BOG NAME	LOCATION AND ACCESS
805	G 29	21G/11-	SUNB	454500	663230		OROMOCTO RIVER SYSTEM BETWEEN OROMOCTO & FTON JCT.
809	G 33	21G/16-	SUNB	455500	663330		9KM E FTON.ACC.RT.2,3KM SE LWR ST.MARYS N SIDE TRACKS
809 A	G 32	21G/15-	YORK	455445	664345		3KM N OF HANWELL.ACC.OFF RT.640 NEW HOUSING DEVELOPMENT
809 B	G 32	21G/15-	YORK	455600	664030		IN FREDERICTON. SW INTER.OF TCH.+REGENT STREET
811	G 20	21G/15-	YORK	454630	665830		6KM NNE OF HARVEY STA.ACCESS LOG.RDS.OFF RTE 3N JCT 640
811 A	G 20	21G/15-	YORK	454700	665645		7KM NNE HARVEY STA.ACC.LOG.RDS.OFF RTE.3 N OF JCT.640
812	G 20	21G/15-	YORK	454530	665530		7KM NNE HARVEY STA.ACCESS BETWEEN RTES 3&640 GARDNER CR.
813	J 11	21J/03-U3	CARL	460800	672900		10KM EAST OF WOODSTOCK;ACCESS BY LOGG.RD. OFF RT.585
814	J 14	21J/03-V3	YORK	461000	671730		23 KM E OF WOODSTOCK;ACCESS BY LOGGING RD OFF RT.585
814 A	J 14	21J/03-V3	YORK	461030	671930		23 KM E OF WOODSTOCK;ACCESS BY LOGGING RD OFF RT.585
815	J 12	21J/03-U1	CARL	460500	672830		10KM SE OF WOODSTOCK.ACCESS BY DIRT ROAD TO THE EDGE
816	J 13	21J/03-U2	YORK	460500	672400		20 KM SE OF WOODSTOCK;ACCESS BY LOGGING RDS OFF RT.595
816 A	J 14	21J/03-V1	YORK	460800	672000		20 KM E OF WOODSTOCK;RT.585 AND 2 KM WALK
817	J 13	21J/03-R3	YORK	460330	672630		16 KM SE OF WOODSTOCK;ACCESS BY POOR RDS OFF RT.105
817 A	J 13	21J/03-T3	YORK	460300	670700		12KM NE OF NACKAWICK, RTS. 610 & 615
820	J 15	21J/03-Y2	YORK	461230	671200		36 KM ENE OF WOODSTOCK;LOGGING RD. & WALK OFF RT.104
821	J 15	21J/03-Y2	YORK	461210	671230		36 KM ENE OF WOODSTOCK
822	J 15	21J/03-Y2	YORK	461120	670850		24 KM NE OF NACKAWICK;ACCESS BY TRAIL OFF TAFFY LAKE
823	J 15	21J/03-Y2	YORK	461030	671220		22 KM NE OF NACKWICK;ACCESS BY DIRT RD OFF RT.104
828	J 15	21J/03-Y2	YORK	461130	671030		25 KM NE OF NACKAWICK;ACCESS BY TRAIL OFF TAFFY LAKE RD.
832	J 10	21J/05-S4	CARL	461930	674200	WILLIAMSTOWN LAK	IN LAKEVILLE;RT.560&DIRT RD TO W & WALK THROUGH FOREST
834	J 10	21J/05-S4	CARL	461810	674145	WILLIAMSTOWN LAK	19KM NW OF WOODSTOCK,RT.560&FARMING ROADS TO THE BOG.
835	J 10	21J/05-S4	CARL	461730	674145	WILLIAMSTOWN LAK	19 KM NW OF WOODSTOCK;RT.560 & FARMIN RD. TO WEST
836	J 10	21J/05-W1	CARL	461945	674000		IN LAKEVILLE, OFF RT. 560
836 A	J 10	21J/05-V2	CARL	462200	674015		25 KM NW OF WOODSTOCK;RT.560, CN RAILROAD TO THE EDGE
837	J 9	21J/07-X1	YORK	462830	665630		55 KM NE OF NACKAWICK;ACCESS BY FOOT FROM DIRT RD OFF107
838	J 9	21J/07-X1	YORK	462830	665700		55 KM NE OF NACKAWICK;ACCESS BY FT. FROM DIRT RD OFF107
841	J 9	21J/07-U3	YORK	462430	665800		IN NAPADOGAN.ACCESS BY FT. FROM LOGG.RD. OFF RT.107
841 A	J 9	21J/07-U2	YORK	462230	665400		5 KM SE OF NAPADOGAN;ACCESS BY FOOT OFF RT. 107
842	J 27	21J/07-	YORK	462000	663030		5KM ESE MCGIVNEY.ACCESS E OFF RT.8 ON LOGGING ROAD.
843	J 27	21J/07-	YORK	461800	663215		6KM S OF MCGIVNEY.ACC.EAST OFF RT.8 ON LOGGING ROADS
844	J 27	21J/07-	YORK	461815	663015		8KM SE OF MCGIVNEY.ACC.EAST OFF RT.8 ON LOGG ROADS
846	J 7	21J/11-J4	CARL	463406	671100		1KM N JUNIPER.ACC.BY IRVING LOGG.RD.OFF RTE.107
846 A	J 7	21J/11-S4	CARL	463342	671006		2.5KM NE JUNIPER.ACC.BY IRVING LOGG.RD TO NURSERY
846 B	J 7	21J/11-T3	CARL	463330	670918		3KM NE JUNIPER.ACC.BY IRVING LOGG.RD.TO NURSERY
846 C	J 7	21J/11-T3	CARL	463248	670930		2KM EAST JUNIPER.ACC.BY IRVING LOGG.RD. TO NURSERY
849	J 6	21J/11-R2	CARL	463100	672100		13 KM WEST OF JUNIPER;ACCESS BY RT. 107
849 A	J 6	21J/11-	CARL	463130	671800		6KM WSW JUNIPER.ACC.BY RTE.107 TO FORESTON
850	J 8	21J/11-W2	CARL	463618	670054		18KM NE JUNIPER.ACC.BY IRVING LOGG.RD.OFF RTE.107
851	J 8	21J/10-U1	YORK	463600	665924		18KM NE JUMIPER.ACC.BY IRVING LOGG.RD.OFF RTE.107

TABLE: M1: LOCATION DATA

BOG NO	MAP NO	NTS NO	COUNTY	LAT.	LONG.	BOG NAME	LOCATION AND ACCESS
852	J 8	21J/10-U1	YORK	463606	665912		18KM NE JUNIPER.ACC.BY IRVING LOGG.RD.OFF RTE.107
855	J 3	21J/15-V3	YORK	465400	664520		55KM EAST OF PLASTER ROCK.RT.109&WALK THROUGH FOREST
857	B 1	21B/10-	CHAR	444230	664530		GRAND MANAAN ISLAND.ACC. W WOODWARDS COVE 1KM WALK
858	B 1	21B/10-	CHAR	444000	664715		GRAND MANAAN ISLAND.ACC.GRAND HARBOUR 1.5KM DOWN ROAD
859	B 1	21B/10-	CHAR	444030	664630		GRANDMANAAN IS.ACC.GRAND HARB. 1.5KM DOWN RD MIKES PT.
860	B 1	21B/10-	CHAR	443950	664615		GRAND MANAAN ISLAND.ACC.WALK .5KM W OF INGALLS HEAD
861	B 3	21B/15-U1	CHAR	445145	665715		SOUTHEAST END OF CAMPOBELLO ISLAND.ACC.BY DIRT ROAD
862	B 3	21B/15-U1	CHAR	445045	665645		ON SOUTHEAST END OF CAMPOBELLC ISLAND,BY RD+BEACH
873	H 5	21H/05-	SAIN	451920	655200		15KM EAST SAINT JOHN.ACC.BESIDE AIRPORT EAST
873 A	H 5	21H/05-	SAIN	451730	655745		7KM EAST SAINT JOHN.ACCESS ON SOUTH SIDE OF RTE.111
874	H 5	21H/05-	SAIN	451930	653950		30KM E SAINT JOHN.ACC.RTE.111,4KM S TYNEMOUTH CREED RD.
875	H 5	21H/05-	SAIN	451830	654000		30KM E SAINT JOHN.ACC.RTE.111,7KM S TYNEMOUTH CREEK RD W
876	H 5	21H/05-	SAIN	451810	654000		30KM E SAINT JOHN.ACC.RTE.111,5KM S OF FAIRFIELD
877	H 5	21H/05-	SAIN	451750	654015		30KM E SAINT JOHN.ACC.RTE.111,5KM S OF FAIRFIELD
878	H 5	21H/05-	SAIN	451750	654030		30KM E SAINT JOHN.ACC.RTE.111,5KM S OF FAIRFIELD
879	H 4	21H/04-Y	SAIN	451300	655410		12KM SE OF ST.JOHN.ACC.BY PAVE & DIRT RD.ALONG SHORE
880	H 1	21H/16-	WEST	455742	641806		4KM NORTH SACKVILLE.ACC.BY RTE.940 TO BOG
881	H 1	21H/16-Y1	WEST	455700	641512		9KM NE OF SACKVILLE.ACCESS NORTH ON RT. 940.
882	H 2	21H/16-Y1	WEST	455524	641600		6KM E SACKVILLE.ACC.BY TCH&NORTH TO POINTE DE BUTTE.
883	H 2	21H/16-V3	WEST	455436	641706		5KM E SACKVILLE.ACC.BY TCH&NORTH TO POINTE DE BUTTE.
884	I 73	21H/16-	WEST	455912	641900		5KM NORTH OF SACKVILLE.ACCESS BY RTE.940
885	I 73	21H/16-	WEST	455840	641940		5KM NORTH SACKVILLE.ACC.BY DIRT RD.OFF RTE.940
886	I 73	21H/16-	WEST	455800	642020		4KM NORTH SACKVILLE.ACC.BY DIRT RD.OFF RTE.940
887	H 1	21H/16-Y1	WEST	455715	641650		9KM NE OF SACKVILLE.ACCESS NORTH ON RT.940, THEN EAST
887 A	H 1	21H/16-Y1	WEST	455730	641555		9KM NE OF SACKVILLE.ACCESS NORTH ON RT.940,THEN EAST
888	H 3	21H/16-	WEST	455600	641145		NB/NS BORDER 2KM SW HALLS HILL SOUTH OF HWY 16
888 A	H 3	21H/16-	WEST	445715	641045		NB/NS BORDER 1KM SW HALLS HILL OFF RTE.16
891	G 6	21G/11-	YORK	454230	674130		32KM NW MCADAM.ACC. RTE. 4 TO RTE.630 TO GP ROADS
894	G 7	21G/11-	YORK	454030	674100		30KM NW MCADAM.ACC.RT.630,12KM GP 18KM RD TO HINKLEY PT
894 A	G 7	21G/11-	YORK	454000	674100		30KM NW MCADAM.ACC.12KM RT.630,18KM GP RD WOODS RD ON L
900	J 5	21J/11-Y3	VICT	464300	671830		22KM SOUTH OF PLASTER ROCK.RT.107 & LOGGING ROADS
901	J 5	21J/11-Z4	CARL	464230	670430		32KM SE OF PLASTER ROCK.RT.109 TO EAST&LOGG. RD. TO SOU.
902	J 1	21J/14-R4	VICT	465020	672245		8KM SOUTH OF PLASTER ROCK. RT.109 & LOGGING ROADS
903	J 1	21J/14-Y1	VICT	465700	671800		12KM EAST OF PLASTER ROCK.RT.109&WALK IN WOODS
904	J 1	21J/14-Y1	VICT	465610	671645		15KM EAST OF PLASTER ROCK, RT. 109
905	J 1	21J/14-Y2	VICT	465700	671440		17KM EAST OF PLASTER ROCK, RT.109 & TRAIL
906	J 2	21J/14-W4	VICT	465430	665900		36KM E OF PLASTERROCK.ACCESS BY LOGG.RD. OFF RT.109
907	J 2	21J/14-W4	VICT	465540	665530		40 KM E OF PLASTER ROCK;ACCESS BY LOGGING RD OFF RT.109
911	J 3	21J/15-W3	NORT	465410	663720		70KM EAST OF PLASTER ROCK,RT.109&AIRSTRIP ROAD
912	J 3	21J/15-W3	NORT	465440	663720		70KM EAST OF PLASTER ROCK,RT.109 & AIRSTRIP ROAD

TABLE: M1: LOCATION DATA

BOG NO	MAP NO	NTS NO	COUNTY	LAT.	LONG.	BOG NAME	LOCATION AND ACCESS
913	J 4	21J/15-Y2	NORT	465730	664000		70KM EAST OF PLASTER ROCK,RT.109 & AIRSTRIP ROAD
914	J 4	21J/15-Z3	NORT	465955	663900		70KM ENE OF PLASTER ROCK,RT.109 & LOGGING ROADS
915	O 3	21O/02-W4	NORT	470650	663115		96KM WEST OF NEWCASTLE, RT.425 & LOGGING ROADS
919	O 3	21O/01-X2	NORT	471000	662120		90KM WNW OF NEWCASTLE,RT.430&SEVOGLE AIRSTRIP ROAD
920	O 4	21O/01-T2	NORT	470230	660530		55KM SW OF NEWCASTLE, RT.425 & LOGGING ROADS
921	O 4	21O/01-T2	NORT	470050	660045		45KM SW OF NEWCASTLE, RT. 425 & LOGGING ROADS
923	P 83	21P/05-Y4	GLOU	472930	654230		15KM SOUTH OF BATHURST, RT.430
924	P 83	21P/05-V1	GLOU	472130	654620		30KM SOUTH OF BATHURST,RT.430 & LOGGING ROADS
925	P 83	21P/05-V2	GLOU	472100	654410		30KM SOUTH OF BATHURST. RT.430&LOGGING ROADS
926	P 83	21P/05-S3	GLOU	471945	654500		38KM NW OF NEWCASTLE,RT.430&NEW LOGGING ROAD
927	O 2	21O/09-V3	REST	474900	662420	ROCKYBROOKPLAINS	35KM SOUTH OF DALHOUSIE, RT.11&LOGGING ROADS
928	O 2	21O/16-S1	REST	474420	662200		29KM SOUTH OF DALHOUSIE,RT.275&LOGGING ROADS
929	O 1	21O/11-Y1	REST	474100	671915	ETANGS MORIN	5KM NORTH OF KEDGEWICK, RT. 17 & SIDE ROAD
930	O 1	21O/11-R3	REST	473350	672815		8KM NORTHWEST OF ST.QUENTIN,DIRT RDS. WEST OF TOWN
931	O 1	21O/06-R2	VICT	471520	672350		27KM SOUTH OF ST.QUENTIN,RT.17 & LOGGING ROADS
936	B 2	21B/10-V4	CHAR	463730	664300		WHITEHEAD ISLAND.ACCESS NORTH SIDE OF ISLAND.
937	B 2	21B/10-V4	CHAR	443745	664815		WHITEHEAD ISLAND.ACCESS SOUTH SIDE OF ISLAND.

TABLE: N1: SUMMARY OF OWNERSHIP AND LEASE DATA

		PERIPHERAL AREA			1 METER DEEP AREA			AREA IN PRODUCTION			AREA ABANDONED			LEASE AREA		
BOG NO	STATUS	CROWN	PRIVATE	TOTAL	CROWN	PRIVATE	TOTAL	CROWN	PRIVATE	TOTAL	CROWN	PRIVATE	TOTAL	TOTAL	1M DEEP	LEASED TO
1	VI	258	25	283	139	2	141	0	0	0	0	0	0	0	0	
1 A	VI	0	57	57	0	0	0	0	0	0	0	0	0	0	0	
3	VI	564	3	567	323	0	323	0	0	0	0	0	0	0	0	
3 A	VI	20	31	51	11	1	12	0	0	0	0	0	0	0	0	
3 B	VI	65	0	65	29	0	29	0	0	0	0	0	0	0	0	
4	VI	528	8	536	387	1	388	0	0	0	0	0	0	0	0	
5	VI	240	0	240	166	0	166	0	0	0	0	0	0	0	0	
5 A	VI	76	0	76	33	0	33	0	0	0	0	0	0	0	0	
6	VI	301	0	301	206	0	206	0	0	0	0	0	0	0	0	
6 A	VI	83	0	83	0	0	0	0	0	0	0	0	0	0	0	
7	VI	150	58	208	107	10	117	0	0	0	0	0	0	0	0	
8	VI	72	0	72	12	0	12	0	0	0	0	0	0	0	0	
9	VI	330	0	330	203	0	203	0	0	0	0	0	0	0	0	
9 A	VI	39	0	39	22	0	22	0	0	0	0	0	0	0	0	
10	VI	393	0	393	278	0	278	0	0	0	0	0	0	0	0	
11	VI	323	10	333	203	7	210	0	0	0	0	0	0	0	0	
12	VI	209	0	209	156	0	156	0	0	0	0	0	0	0	0	
12 A	VI	129	0	129	34	0	34	0	0	0	0	0	0	0	0	
13	VI	301	0	301	196	0	196	0	0	0	0	0	0	0	0	
14	VI	202	0	202	117	0	117	0	0	0	0	0	0	0	0	
14 A	VI	72	0	72	9	0	9	0	0	0	0	0	0	0	0	
16	VI	426	33	459	271	12	283	0	0	0	0	0	0	0	0	
17	VI	341	0	341	178	0	178	0	0	0	0	0	0	0	0	
17 A	VI	126	15	141	84	3	87	0	0	0	0	0	0	0	0	
19	VI	159	40	199	42	0	42	0	0	0	0	0	0	0	0	
19 A	VI	12	29	41	2	8	10	0	0	0	0	0	0	0	0	
20	VI	183	0	183	116	0	116	0	0	0	0	0	0	0	0	
21	VI	233	12	245	107	2	109	0	0	0	0	0	0	0	0	
22	VI	235	0	235	112	0	112	0	0	0	0	0	0	0	0	
22 A	VI	41	0	41	3	0	3	0	0	0	0	0	0	0	0	
22 B	VI	38	0	38	28	0	28	0	0	0	0	0	0	0	0	
23	VI	283	0	283	178	0	178	0	0	0	0	0	0	0	0	
23 A	VI	96	0	96	33	0	33	0	0	0	0	0	0	0	0	
24	VI	299	0	299	226	0	226	0	0	0	0	0	0	0	0	
25	VI	1285	82	1367	763	21	784	0	0	0	0	0	0	0	0	
25 A	VI	173	0	173	59	0	59	0	0	0	0	0	0	0	0	
25 D	VI	50	0	50	13	0	13	0	0	0	0	0	0	0	0	
25 E	VI	33	0	33	15	0	15	0	0	0	0	0	0	0	0	
26	VI	80	0	80	41	0	41	0	0	0	0	0	0	0	0	
27	VI	318	0	318	152	0	152	0	0	0	0	0	0	0	0	

Note: See page 145 for explanation of the status abbreviations.

TABLE: N1: SUMMARY OF OWNERSHIP AND LEASE DATA

BOG NO	STATUS	PERIPHERAL AREA			1 METER DEEP AREA			AREA IN PRODUCTION			AREA ABANDONED			LEASE AREA		LEASED TO
		CROWN	PRIVATE	TOTAL	CROWN	PRIVATE	TOTAL	CROWN	PRIVATE	TOTAL	CROWN	PRIVATE	TOTAL	TOTAL	1M DEEP	
28	VI	241	0	241	151	0	151	0	0	0	0	0	0	0	0	
29	VI	307	0	307	206	0	206	0	0	0	0	0	0	0	0	
30	VI	515	0	515	137	0	137	0	0	0	0	0	0	0	0	
31	VI	393	0	393	150	0	150	0	0	0	0	0	0	0	0	
32	VI	910	0	910	249	0	249	0	0	0	0	0	0	0	0	
32 A	VI	29	0	29	16	0	16	0	0	0	0	0	0	0	0	
33	VI	219	0	219	110	0	110	0	0	0	0	0	0	0	0	
34	VI	80	0	80	34	0	34	0	0	0	0	0	0	0	0	
36	VI	120	0	120	76	0	76	0	0	0	0	0	0	0	0	
36 A	VI	28	0	28	14	0	14	0	0	0	0	0	0	0	0	
37	VI	186	9	195	103	10	113	0	0	0	0	0	0	0	0	
38	VI	371	0	371	156	0	156	0	0	0	0	0	0	0	0	
39	VI	272	0	272	163	0	163	0	0	0	0	0	0	0	0	
40	VI	435	0	435	259	0	259	0	0	0	0	0	0	0	0	
41	VI	264	80	344	163	53	216	0	0	0	0	0	0	0	0	
42	VI	112	0	112	72	0	72	0	0	0	0	0	0	0	0	
43	VI	8	0	8	5	0	5	0	0	0	0	0	0	0	0	
44	VI	545	0	545	308	0	308	0	0	0	0	0	0	0	0	
44 A	VI	55	0	55	25	0	25	0	0	0	0	0	0	0	0	
45	VI	286	24	310	151	8	159	0	0	0	0	0	0	0	0	
46	VI	441	0	441	333	0	333	0	0	0	0	0	0	0	0	
47	VI	305	0	305	185	0	185	0	0	0	0	0	0	0	0	
47 A	VI	46	0	46	33	0	33	0	0	0	0	0	0	0	0	
48	VI	118	0	118	85	0	85	0	0	0	0	0	0	0	0	
49	VI	79	0	79	35	0	35	0	0	0	0	0	0	0	0	
50	VI	78	0	78	43	0	43	0	0	0	0	0	0	0	0	
52	VI	473	0	473	241	0	241	0	0	0	0	0	0	0	0	
52 A	VI	43	17	60	24	9	33	0	0	0	0	0	0	0	0	
52 B	VI	6	39	45	0	3	3	0	0	0	0	0	0	0	0	
52 C	VI	4	9	13	2	8	10	0	0	0	0	0	0	0	0	
53	VI	122	0	122	62	0	62	0	0	0	0	0	0	0	0	
54	VI	262	4	266	176	2	178	0	0	0	0	0	0	0	0	
55	VI	159	0	159	88	0	88	0	0	0	0	0	0	0	0	
55 A	VI	17	11	28	2	0	2	0	0	0	0	0	0	0	0	
56	VI	207	159	366	147	94	241	0	0	0	0	0	0	0	0	
57	VI	166	3	169	136	0	136	0	0	0	0	0	0	0	0	
58	VI	0	203	203	0	149	149	0	0	0	0	0	0	0	0	
58 A	VI	0	28	28	0	14	14	0	0	0	0	0	0	0	0	
60	VI	118	221	339	106	77	183	0	0	0	0	0	0	0	0	
61	VI	265	82	347	185	42	227	0	0	0	0	0	0	0	0	

TABLE: N1: SUMMARY OF OWNERSHIP AND LEASE DATA

		PERIPHERAL AREA			1 METER DEEP AREA			AREA IN PRODUCTION			AREA ABANDONED			LEASE AREA		
BOG NO	STATUS	CROWN	PRIVATE	TOTAL	CROWN	PRIVATE	TOTAL	CROWN	PRIVATE	TOTAL	CROWN	PRIVATE	TOTAL	TOTAL	1M DEEP	LEASED TO
62	VI	0	50	50	0	11	11	0	0	0	0	0	0	0	0	
63	VI	16	33	49	25	6	31	0	0	0	0	0	0	0	0	
64	VI	0	62	62	0	24	24	0	0	0	0	0	0	0	0	
66	VI	0	74	74	0	57	57	0	0	0	0	0	0	0	0	
70	VI	10	79	89	4	61	65	0	0	0	0	0	0	0	0	
71	VI	42	30	72	20	5	25	0	0	0	0	0	0	0	0	
72	VI	0	32	32	0	20	20	0	0	0	0	0	0	0	0	
73	VI	75	0	75	31	0	31	0	0	0	0	0	0	0	0	
75	VI	24	20	44	15	9	24	0	0	0	0	0	0	0	0	
76	VI	218	187	405	177	112	289	0	0	0	0	0	0	0	0	
77	VI	0	57	57	0	17	17	0	0	0	0	0	0	0	0	
77 A	VI	0	119	119	0	0	0	0	0	0	0	0	0	0	0	
78	VI	0	18	18	0	7	7	0	0	0	0	0	0	0	0	
79	VI	0	59	59	0	18	18	0	0	0	0	0	0	0	0	
95	VI	0	74	74	0	44	44	0	0	0	0	0	0	0	0	
96	VI	0	45	45	0	30	30	0	0	0	0	0	0	0	0	
98	VI	0	96	96	0	73	73	0	0	0	0	0	0	0	0	
103	VI	30	3	33	20	1	21	0	0	0	0	0	0	0	0	
104	VI	24	4	28	14	1	15	0	0	0	0	0	0	0	0	
105	VI	15	0	15	10	0	10	0	0	0	0	0	0	0	0	
106	VI	31	0	31	19	0	19	0	0	0	0	0	0	0	0	
107	VI	62	0	62	33	0	33	0	0	0	0	0	0	0	0	
107 A	VI	15	0	15	5	0	5	0	0	0	0	0	0	0	0	
108	VI	86	0	86	55	0	55	0	0	0	0	0	0	0	0	
110	VI	23	0	23	15	0	15	0	0	0	0	0	0	0	0	
111	VI	106	0	106	4	0	4	0	0	0	0	0	0	0	0	
112	VI	25	0	25	0	0	0	0	0	0	0	0	0	0	0	
113	VI	38	0	38	18	0	18	0	0	0	0	0	0	0	0	
114	VI	25	0	25	7	0	7	0	0	0	0	0	0	0	0	
115	VI	219	48	267	168	25	193	0	0	0	0	0	0	0	0	
116	VI	106	0	106	65	0	65	0	0	0	0	0	0	0	0	
117	VI	0	47	47	0	12	12	0	0	0	0	0	0	0	0	
118	VI	124	0	124	34	0	34	0	0	0	0	0	0	0	0	
118 A	VI	32	0	32	18	0	18	0	0	0	0	0	0	0	0	
119	VI	33	0	33	16	0	16	0	0	0	0	0	0	0	0	
120	VI	90	0	90	35	0	35	0	0	0	0	0	0	0	0	
121	VI	42	0	42	17	0	17	0	0	0	0	0	0	0	0	
121 A	VI	68	0	68	48	0	48	0	0	0	0	0	0	0	0	
122	VI	68	45	113	23	15	38	0	0	0	0	0	0	0	0	
123	VI	50	3	53	0	0	0	0	0	0	0	0	0	0	0	

TABLE: N1: SUMMARY OF OWNERSHIP AND LEASE DATA

		PERIPHERAL AREA			1 METER DEEP AREA			AREA IN PRODUCTION			AREA ABANDONED			LEASE AREA		
BOG NO	STATUS	CROWN	PRIVATE	TOTAL	CROWN	PRIVATE	TOTAL	CROWN	PRIVATE	TOTAL	CROWN	PRIVATE	TOTAL	TOTAL	1M DEEP	LEASED TO
124	VI	81	0	81	6	0	6	0	0	0	0	0	0	0	0	
125	VI	165	0	165	12	0	12	0	0	0	0	0	0	0	0	
126	VI	76	0	76	22	0	22	0	0	0	0	0	0	0	0	
126 A	VI	42	0	42	14	0	14	0	0	0	0	0	0	0	0	
130	VI	156	0	156	26	0	26	0	0	0	0	0	0	0	0	
133	VI	86	0	86	36	0	36	0	0	0	0	0	0	0	0	
134	VI	131	0	131	46	0	46	0	0	0	0	0	0	0	0	
134 A	VI	37	0	37	6	0	6	0	0	0	0	0	0	0	0	
135	VI	46	0	46	9	0	9	0	0	0	0	0	0	0	0	
137	VI	42	0	42	9	0	9	0	0	0	0	0	0	0	0	
138	VI	122	0	122	49	0	49	0	0	0	0	0	0	0	0	
139	VI	79	0	79	21	0	21	0	0	0	0	0	0	0	0	
139 A	VI	24	0	24	6	0	6	0	0	0	0	0	0	0	0	
140	VI	52	0	52	23	0	23	0	0	0	0	0	0	0	0	
141	VI	46	0	46	5	0	5	0	0	0	0	0	0	0	0	
144	VI	47	0	47	29	0	29	0	0	0	0	0	0	0	0	
145	VI	122	0	122	50	0	50	0	0	0	0	0	0	0	0	
146	VI	124	0	124	38	0	38	0	0	0	0	0	0	0	0	
146 B	VI	18	0	18	0	0	0	0	0	0	0	0	0	0	0	
146 C	VI	50	0	50	14	0	14	0	0	0	0	0	0	0	0	
147	VI	25	0	25	7	0	7	0	0	0	0	0	0	0	0	
148	VI	20	0	20	4	0	4	0	0	0	0	0	0	0	0	
149	VI	35	0	35	9	0	9	0	0	0	0	0	0	0	0	
150	VI	36	0	36	13	0	13	0	0	0	0	0	0	0	0	
150 A	VI	37	0	37	20	0	20	0	0	0	0	0	0	0	0	
151	VI	38	0	38	15	0	15	0	0	0	0	0	0	0	0	
152	VI	47	0	47	23	0	23	0	0	0	0	0	0	0	0	
153	VI	213	0	213	114	0	114	0	0	0	0	0	0	0	0	
154	VI	130	0	130	67	0	67	0	0	0	0	0	0	0	0	
154 A	VI	63	0	63	26	0	26	0	0	0	0	0	0	0	0	
154 B	VI	26	0	26	18	0	18	0	0	0	0	0	0	0	0	
155	VI	18	0	18	6	0	6	0	0	0	0	0	0	0	0	
156	VI	30	0	30	8	0	8	0	0	0	0	0	0	0	0	
158	VI	82	0	82	46	0	46	0	0	0	0	0	0	0	0	
159	VI	60	0	60	47	0	47	0	0	0	0	0	0	0	0	
159 A	VI	39	1	40	18	0	18	0	0	0	0	0	0	0	0	
160	VI	94	0	94	72	0	72	0	0	0	0	0	0	0	0	
161	VI	30	0	30	14	0	14	0	0	0	0	0	0	0	0	
162	VI	63	0	63	33	0	33	0	0	0	0	0	0	0	0	
162 A	VI	49	1	50	0	0	0	0	0	0	0	0	0	0	0	

TABLE: N1: SUMMARY OF OWNERSHIP AND LEASE DATA

BOG NO		STATUS	PERIPHERAL AREA			1 METER DEEP AREA			AREA IN PRODUCTION			AREA ABANDONED			LEASE AREA		LEASED TO
			CROWN	PRIVATE	TOTAL	CROWN	PRIVATE	TOTAL	CROWN	PRIVATE	TOTAL	CROWN	PRIVATE	TOTAL	TOTAL	1M DEEP	
163		VI	16	0	16	7	0	7	0	0	0	0	0	0	0	0	
164		VI	30	21	51	20	10	30	0	0	0	0	0	0	0	0	
165		VI	46	0	46	34	0	34	0	0	0	0	0	0	0	0	
166		VI	65	24	89	46	13	59	0	0	0	0	0	0	0	0	
167		VI	94	1	95	50	0	50	0	0	0	0	0	0	0	0	
168		VI	40	14	54	35	6	41	0	0	0	0	0	0	0	0	
169		VI	24	0	24	13	0	13	0	0	0	0	0	0	0	0	
170		VI	68	10	78	35	1	36	0	0	0	0	0	0	0	0	
170	A	VI	19	30	49	2	16	18	0	0	0	0	0	0	0	0	
171		VI	4	68	72	1	60	61	0	0	0	0	0	0	0	0	
171	A	VI	0	32	32	0	23	23	0	0	0	0	0	0	0	0	
173		VI	42	3	45	10	0	10	0	0	0	0	0	0	0	0	
173	A	VI	0	27	27	0	0	0	0	0	0	0	0	0	0	0	
174		VI	15	14	29	7	9	16	0	0	0	0	0	0	0	0	
176		VI	107	0	107	60	0	60	0	0	0	0	0	0	0	0	
177		VI	63	0	63	27	0	27	0	0	0	0	0	0	0	0	
178		VI	70	0	70	6	0	6	0	0	0	0	0	0	0	0	
179		VI	69	0	69	34	0	34	0	0	0	0	0	0	0	0	
180		VI	71	16	87	45	9	54	0	0	0	0	0	0	0	0	
181		VI	27	0	27	12	0	12	0	0	0	0	0	0	0	0	
181	A	VI	84	0	84	32	0	32	0	0	0	0	0	0	0	0	
182		VI	51	0	51	13	0	13	0	0	0	0	0	0	0	0	
183		VI	21	0	21	8	0	8	0	0	0	0	0	0	0	0	
190		VI	29	0	29	19	0	19	0	0	0	0	0	0	0	0	
190	A	VI	2	6	8	0	0	0	0	0	0	0	0	0	0	0	
191		VI	55	0	55	22	0	22	0	0	0	0	0	0	0	0	
192		VI	40	0	40	14	0	14	0	0	0	0	0	0	0	0	
193		VI	65	0	65	18	0	18	0	0	0	0	0	0	0	0	
194		VI	78	0	78	13	0	13	0	0	0	0	0	0	0	0	
195		VI	87	0	87	33	0	33	0	0	0	0	0	0	0	0	
196		VI	90	0	90	55	0	55	0	0	0	0	0	0	0	0	
197		VI	8	14	22	3	5	8	0	0	0	0	0	0	0	0	
198		VI	23	31	54	0	0	0	0	0	0	0	0	0	0	0	
198	A	VI	60	0	60	0	0	0	0	0	0	0	0	0	0	0	
199		VI	110	0	110	20	0	20	0	0	0	0	0	0	0	0	
200		VI	226	0	226	35	0	35	0	0	0	0	0	0	0	0	
200	A	VI	58	0	58	16	0	16	0	0	0	0	0	0	0	0	
202		VI	59	0	59	14	0	14	0	0	0	0	0	0	0	0	
203		VI	154	0	154	87	0	87	0	0	0	0	0	0	0	0	
203	A	VI	38	0	38	16	0	16									

TABLE: N1: SUMMARY OF OWNERSHIP AND LEASE DATA

BOG NO		STATUS	PERIPHERAL AREA CROWN	PERIPHERAL AREA PRIVATE	PERIPHERAL AREA TOTAL	1 METER DEEP AREA CROWN	1 METER DEEP AREA PRIVATE	1 METER DEEP AREA TOTAL	AREA IN PRODUCTION CROWN	AREA IN PRODUCTION PRIVATE	AREA IN PRODUCTION TOTAL	AREA ABANDONED CROWN	AREA ABANDONED PRIVATE	AREA ABANDONED TOTAL	LEASE AREA TOTAL	LEASE AREA 1M DEEP	LEASED TO
203	B	VI	50	0	50	18	0	18	0	0	0	0	0	0	0	0	
204		VI	24	9	33	0	0	0	0	0	0	0	0	0	0	0	
204	A	VI	9	11	20	0	3	3	0	0	0	0	0	0	0	0	
205		VI	75	0	75	31	0	31	0	0	0	0	0	0	0	0	
205	A	VI	0	16	16	0	0	0	0	0	0	0	0	0	0	0	
206		VI	0	33	33	0	2	2	0	0	0	0	0	0	0	0	
207		VI	0	22	22	0	0	0	0	0	0	0	0	0	0	0	
208		VI	0	24	24	0	3	3	0	0	0	0	0	0	0	0	
209		VI	98	3	101	78	0	78	0	0	0	0	0	0	0	0	
209	A	VI	10	2	12	6	0	6	0	0	0	0	0	0	0	0	
211		VI	0	311	311	0	191	191	0	0	0	0	0	0	0	0	
212		VI	0	308	308	0	189	189	0	0	0	0	0	0	0	0	
213		HO	1777	488	2265	1274	73	1347	0	0	0	0	0	0	238	182	MALPEC(AGRI NOT INCL
213	A	VI	64	4	68	20	1	21	0	0	0	0	0	0	0	0	
214		VI	0	11	11	0	0	0	0	0	0	0	0	0	0	0	
214	A	VI	0	31	31	0	12	12	0	0	0	0	0	0	0	0	
215		VI	186	44	230	96	19	115	0	0	0	0	0	0	0	0	
217		VI	45	34	79	0	0	0	0	0	0	0	0	0	0	0	
217	A	VI	84	0	84	4	0	4	0	0	0	0	0	0	0	0	
218		VI	75	0	75	18	0	18	0	0	0	0	0	0	0	0	
219		VI	41	0	41	3	0	3	0	0	0	0	0	0	0	0	
219	A	VI	7	54	61	2	8	10	0	0	0	0	0	0	0	0	
219	B	VI	6	65	71	0	48	48	0	0	0	0	0	0	0	0	
220		VI	24	0	24	10	0	10	0	0	0	0	0	0	0	0	
220	A	VI	10	45	55	0	12	12	0	0	0	0	0	0	0	0	
221		VI	128	0	128	43	0	43	0	0	0	0	0	0	0	0	
224		VI	130	0	130	76	0	76	0	0	0	0	0	0	0	0	
225		VI	30	0	30	21	0	21	0	0	0	0	0	0	0	0	
226		VI	45	0	45	18	0	18	0	0	0	0	0	0	0	0	
227		VI	17	0	17	6	0	6	0	0	0	0	0	0	0	0	
228		VI	29	42	71	13	27	40	0	0	0	0	0	0	0	0	
228	A	VI	29	13	42	17	6	23	0	0	0	0	0	0	0	0	
229		VI	35	0	35	17	0	17	0	0	0	0	0	0	0	0	
230		VI	39	2	41	28	0	28	0	0	0	0	0	0	0	0	
242		VI	301	0	301	166	0	166	0	0	0	0	0	0	0	0	
242	A	VI	27	0	27	10	0	10	0	0	0	0	0	0	0	0	
242	B	VI	49	0	49	14	0	14	0	0	0	0	0	0	0	0	
242	C	VI	34	0	34	9	0	9	0	0	0	0	0	0	0	0	
243		VI	28	0	28	9	0	9	0	0	0	0	0	0	0	0	
244		VI	19	10	29	7	0	7	0	0	0	0	0	0	0	0	

TABLE: N1: SUMMARY OF OWNERSHIP AND LEASE DATA

		PERIPHERAL AREA			1 METER DEEP AREA			AREA IN PRODUCTION			AREA ABANDONED			LEASE AREA		
BOG NO	STATUS	CROWN	PRIVATE	TOTAL	CROWN	PRIVATE	TOTAL	CROWN	PRIVATE	TOTAL	CROWN	PRIVATE	TOTAL	TOTAL	1M DEEP	LEASED TO
245	VI	196	0	196	118	0	118	0	0	0	0	0	0	0	0	
248	VI	84	0	84	50	0	50	0	0	0	0	0	0	0	0	
249	VI	31	0	31	10	0	10	0	0	0	0	0	0	0	0	
250	VI	13	0	13	2	0	2	0	0	0	0	0	0	0	0	
251	VI	56	0	56	6	0	6	0	0	0	0	0	0	0	0	
252	VI	78	0	78	38	0	38	0	0	0	0	0	0	0	0	
253	VI	37	0	37	18	0	18	0	0	0	0	0	0	0	0	
256	VI	91	0	91	73	0	73	0	0	0	0	0	0	0	0	
256 A	VI	0	76	76	0	6	6	0	0	0	0	0	0	0	0	
256 B	VI	0	46	46	0	0	0	0	0	0	0	0	0	0	0	
256 C	VI	1	25	26	0	0	0	0	0	0	0	0	0	0	0	
257	VI	56	0	56	44	0	44	0	0	0	0	0	0	0	0	
258	VI	142	0	142	48	0	48	0	0	0	0	0	0	0	0	
261	VI	50	0	50	15	0	15	0	0	0	0	0	0	0	0	
261 A	VI	52	0	52	20	0	20	0	0	0	0	0	0	0	0	
261 B	VI	45	0	45	4	0	4	0	0	0	0	0	0	0	0	
261 C	VI	60	0	60	11	0	11	0	0	0	0	0	0	0	0	
263	VI	8	44	52	0	19	19	0	0	0	0	0	0	0	0	
264	VI	14	27	41	0	0	0	0	0	0	0	0	0	0	0	
265	VI	23	1	24	0	0	0	0	0	0	0	0	0	0	0	
266	VI	106	17	123	72	7	79	0	0	0	0	0	0	0	0	
267	VI	0	113	113	0	23	23	0	0	0	0	0	0	0	0	
268	VI	64	0	64	14	0	14	0	0	0	0	0	0	0	0	
269	VI	0	57	57	0	10	10	0	0	0	0	0	0	0	0	
270	VI	31	8	39	8	0	8	0	0	0	0	0	0	0	0	
271	VI	106	0	106	70	0	70	0	0	0	0	0	0	0	0	
276	VI	43	0	43	20	0	20	0	0	0	0	0	0	0	0	
277	VI	24	0	24	11	0	11	0	0	0	0	0	0	0	0	
278	VI	95	14	109	27	0	27	0	0	0	0	0	0	0	0	
279	VI	29	1	30	10	0	10	0	0	0	0	0	0	0	0	
282	VI	48	0	48	20	0	20	0	0	0	0	0	0	0	0	
284	VI	37	3	40	17	0	17	0	0	0	0	0	0	0	0	
285	VI	73	2	75	40	0	40	0	0	0	0	0	0	0	0	
286	VI	33	8	41	5	4	9	0	0	0	0	0	0	0	0	
287	VI	69	0	69	32	0	32	0	0	0	0	0	0	0	0	
301	VI	682	2	684	453	0	453	0	0	0	0	0	0	0	0	
301 A	VI	391	9	400	157	0	157	0	0	0	0	0	0	0	0	
302	VI	101	0	101	65	0	65	0	0	0	0	0	0	0	0	
302 A	VI	233	0	233	145	0	145	0	0	0	0	0	0	0	0	
303	VI	140	3	143	54	0	54	0	0	0	0	0	0	0	0	

TABLE: N1: SUMMARY OF OWNERSHIP AND LEASE DATA

		PERIPHERAL AREA			1 METER DEEP AREA			AREA IN PRODUCTION			AREA ABANDONED			LEASE AREA		
BOG NO	STATUS	CROWN	PRIVATE	TOTAL	CROWN	PRIVATE	TOTAL	CROWN	PRIVATE	TOTAL	CROWN	PRIVATE	TOTAL	TOTAL	1M DEEP	LEASED TO
303 A	VI	408	0	408	155	0	155	0	0	0	0	0	0	0	0	
304	VI	111	0	111	46	0	46	0	0	0	0	0	0	0	0	
304 A	VI	790	0	790	563	0	563	0	0	0	0	0	0	0	0	
305	VI	571	0	571	412	0	412	0	0	0	0	0	0	0	0	
306	VI	484	125	609	310	50	360	0	0	0	0	0	0	0	0	PRIVATE-KOUCH.PARK
308	VI	228	0	228	55	0	55	0	0	0	0	0	0	0	0	
311	VI	79	0	79	38	0	38	0	0	0	0	0	0	0	0	
311 A	VI	268	11	279	15	7	22	0	0	0	0	0	0	0	0	
312	VI	186	0	186	82	0	82	0	0	0	0	0	0	0	0	
313	VI	368	0	368	205	0	205	0	0	0	0	0	0	0	0	
318	VI	123	56	179	4	0	4	0	0	0	0	0	0	0	0	
319	VI	22	0	22	0	0	0	0	0	0	0	0	0	0	0	
320	VI	91	0	91	42	0	42	0	0	0	0	0	0	0	0	
323	VI	473	642	1115	252	308	560	0	0	0	0	0	0	0	0	PRIVATE-KOUCH.PARK
324 E	HO	1175	802	1977	963	580	1543	130	32	162	0	0	0	620	595	ASB CANADA LTD
324 N	VI	1213	62	1275	927	47	974	0	0	0	0	0	0	0	0	
324 W	HO	2587	452	3039	2079	312	2391	90	2	92	0	0	0	536	521	T&H PEAT MOSS LTD.
337	VI	680	1	681	413	0	413	0	0	0	0	0	0	0	0	
337 A	VI	169	39	208	129	23	152	0	0	0	0	0	0	0	0	
338	HO	559	291	850	501	164	665	17	0	17	0	0	0	512	454	GULF PEAT CO.LTD.
339	VI	97	0	97	45	0	45	0	0	0	0	0	0	0	0	
340	VI	50	0	50	35	0	35	0	0	0	0	0	0	0	0	
341	VI	11	17	28	9	9	18	0	0	0	0	0	0	0	0	
342	VI	15	1	16	0	0	0	0	0	0	0	0	0	0	0	
342 A	VI	69	0	69	18	0	18	0	0	0	0	0	0	0	0	
343	VI	130	83	213	89	15	104	0	0	0	0	0	0	0	0	
348	VI	84	0	84	67	0	67	0	0	0	0	0	0	0	0	
350	VI	10	25	35	0	0	0	0	0	0	0	0	0	0	0	
352	VI	47	6	53	0	0	0	0	0	0	0	0	0	0	0	
352 A	VI	0	31	31	0	0	0	0	0	0	0	0	0	0	0	
353	HO	92	237	329	67	188	255	0	0	0	0	0	0	90	65	BURNT CHURCH PEAT CO
354	VI	460	0	460	291	0	291	0	0	0	0	0	0	0	0	
356	VI	183	2	185	121	0	121	0	0	0	0	0	0	0	0	
357	VI	0	54	54	0	7	7	0	0	0	0	0	0	0	0	
357 A	VI	0	62	62	0	20	20	0	0	0	0	0	0	0	0	
358	VI	273	0	273	83	0	83	0	0	0	0	0	0	0	0	
359	VI	94	0	94	60	0	60	0	0	0	0	0	0	0	0	
360	VI	76	0	76	31	0	31	0	0	0	0	0	0	0	0	
363	VI	116	1	117	62	0	62	0	0	0	0	0	0	0	0	
364	VI	214	0	214	91	0	91	0	0	0	0	0	0	0	0	

TABLE: N1: SUMMARY OF OWNERSHIP AND LEASE DATA

			PERIPHERAL AREA			1 METER DEEP AREA			AREA IN PRODUCTION			AREA ABANDONED			LEASE AREA		
BOG	NO	STATUS	CROWN	PRIVATE	TOTAL	CROWN	PRIVATE	TOTAL	CROWN	PRIVATE	TOTAL	CROWN	PRIVATE	TOTAL	TOTAL	1M DEEP	LEASED TO
364	A	VI	36	0	36	14	0	14	0	0	0	0	0	0	0	0	
365		VI	14	0	14	7	0	7	0	0	0	0	0	0	0	0	
367		VI	100	0	100	25	0	25	0	0	0	0	0	0	0	0	
368		VI	176	0	176	106	0	106	0	0	0	0	0	0	0	0	
369		VI	38	0	38	24	0	24	0	0	0	0	0	0	0	0	
369	A	VI	40	0	40	19	0	19	0	0	0	0	0	0	0	0	
369	B	VI	120	0	120	45	0	45	0	0	0	0	0	0	0	0	
370		VI	106	0	106	45	0	45	0	0	0	0	0	0	0	0	
371		VI	20	3	23	10	0	10	0	0	0	0	0	0	0	0	
372		VI	52	9	61	9	0	9	0	0	0	0	0	0	0	0	
373		VI	316	0	316	190	0	190	0	0	0	0	0	0	0	0	
373	A	VI	53	0	53	28	0	28	0	0	0	0	0	0	0	0	
374		VI	66	0	66	16	0	16	0	0	0	0	0	0	0	0	
375		VI	34	0	34	21	0	21	0	0	0	0	0	0	0	0	
376		VI	495	0	495	165	0	165	0	0	0	0	0	0	0	0	
376	A	VI	65	0	65	41	0	41	0	0	0	0	0	0	0	0	
377		VI	132	0	132	30	0	30	0	0	0	0	0	0	0	0	
378		VI	80	0	80	11	0	11	0	0	0	0	0	0	0	0	
379		VI	22	0	22	5	0	5	0	0	0	0	0	0	0	0	
380		VI	39	0	39	6	0	6	0	0	0	0	0	0	0	0	
381		VI	276	0	276	149	0	149	0	0	0	0	0	0	0	0	
381	A	VI	62	1	63	33	0	33	0	0	0	0	0	0	0	0	
382		VI	34	0	34	17	0	17	0	0	0	0	0	0	0	0	
383		VI	213	0	213	102	0	102	0	0	0	0	0	0	0	0	
384		VI	24	0	24	6	0	6	0	0	0	0	0	0	0	0	
386		VI	66	0	66	25	0	25	0	0	0	0	0	0	0	0	
387		VI	36	0	36	25	0	25	0	0	0	0	0	0	0	0	
388	A	VI	194	0	194	80	0	80	0	0	0	0	0	0	0	0	
389		VI	578	57	635	341	0	341	0	0	0	0	0	0	0	0	
390		VI	375	0	375	129	0	129	0	0	0	0	0	0	0	0	
391		VI	596	0	596	222	0	222	0	0	0	0	0	0	0	0	
391	A	VI	52	14	66	4	2	6	0	0	0	0	0	0	0	0	
392		VI	261	0	261	70	0	70	0	0	0	0	0	0	0	0	
392	A	VI	40	0	40	21	0	21	0	0	0	0	0	0	0	0	
393		VI	180	0	180	131	0	131	0	0	0	0	0	0	0	0	
393	A	VI	126	0	126	8	0	8	0	0	0	0	0	0	0	0	
397		VI	0	39	39	0	22	22	0	0	0	0	0	0	0	0	
399		VI	0	87	87	0	5	5	0	0	0	0	0	0	0	0	
400		VI	0	117	117	0	57	57	0	0	0	0	0	0	0	0	
405		VI	12	35	47	4	28	32	0	0	0	0	0	0	0	0	

TABLE: N1: SUMMARY OF OWNERSHIP AND LEASE DATA

		PERIPHERAL AREA			1 METER DEEP AREA			AREA IN PRODUCTION			AREA ABANDONED			LEASE AREA		
BOG NO	STATUS	CROWN	PRIVATE	TOTAL	CROWN	PRIVATE	TOTAL	CROWN	PRIVATE	TOTAL	CROWN	PRIVATE	TOTAL	TOTAL	1M DEEP	LEASED TO
408	VI	0	20	20	0	10	10	0	0	0	0	0	0	0	0	
414	VI	0	82	82	0	56	56	0	0	0	0	0	0	0	0	
415	VI	0	83	83	0	41	41	0	0	0	0	0	0	0	0	
416	VI	0	19	19	0	8	8	0	0	0	0	0	0	0	0	
417	VI	0	46	46	0	9	9	0	0	0	0	0	0	0	0	
419	DU	0	83	83	0	35	35	0	0	0	0	0	0	0	0	
423	VI	0	77	77	0	3	3	0	0	0	0	0	0	0	0	
426	VI	0	143	143	0	40	40	0	0	0	0	0	0	0	0	
428	VI	41	71	112	27	47	74	0	0	0	0	0	0	0	0	
429	DU	267	0	267	111	0	111	0	0	0	0	0	0	0	0	
429 A	VI	111	0	111	46	0	46	0	0	0	0	0	0	0	0	
430	VI	124	0	124	46	0	46	0	0	0	0	0	0	0	0	
431	VI	324	0	324	15	0	15	0	0	0	0	0	0	0	0	
431 A	VI	66	0	66	5	0	5	0	0	0	0	0	0	0	0	
431 B	VI	51	0	51	19	0	19	0	0	0	0	0	0	0	0	
431 C	VI	38	0	38	0	0	0	0	0	0	0	0	0	0	0	
432	VI	169	0	169	70	0	70	0	0	0	0	0	0	0	0	
432 A	VI	108	0	108	11	0	11	0	0	0	0	0	0	0	0	
433	VI	36	0	36	5	0	5	0	0	0	0	0	0	0	0	
434	VI	852	0	852	332	0	332	0	0	0	0	0	0	0	0	
434 A	VI	113	0	113	51	0	51	0	0	0	0	0	0	0	0	
435	VI	24	0	24	11	0	11	0	0	0	0	0	0	0	0	
436	VI	14	0	14	9	0	9	0	0	0	0	0	0	0	0	
437	VI	302	0	302	71	0	71	0	0	0	0	0	0	0	0	
438	VI	180	0	180	92	0	92	0	0	0	0	0	0	0	0	
438 A	VI	57	0	57	0	0	0	0	0	0	0	0	0	0	0	
439	VI	250	0	250	49	0	49	0	0	0	0	0	0	0	0	
440	VI	587	0	587	180	0	180	0	0	0	0	0	0	0	0	
440 A	VI	56	0	56	6	0	6	0	0	0	0	0	0	0	0	
441 A	VI	32	0	32	9	0	9	0	0	0	0	0	0	0	0	
442	VI	232	0	232	35	0	35	0	0	0	0	0	0	0	0	
442 A	VI	39	0	39	11	0	11	0	0	0	0	0	0	0	0	
443	VI	200	0	200	41	0	41	0	0	0	0	0	0	0	0	
443 A	VI	40	0	40	12	0	12	0	0	0	0	0	0	0	0	
444	VI	146	0	146	25	0	25	0	0	0	0	0	0	0	0	
445	VI	16	0	16	0	0	0	0	0	0	0	0	0	0	0	
446	VI	75	0	75	38	0	38	0	0	0	0	0	0	0	0	
447	VI	36	0	36	21	0	21	0	0	0	0	0	0	0	0	
448	VI	253	0	253	42	0	42	0	0	0	0	0	0	0	0	
448 A	VI	156	0	156	15	0	15	0	0	0	0	0	0	0	0	

TABLE: N1: SUMMARY OF OWNERSHIP AND LEASE DATA

		PERIPHERAL AREA			1 METER DEEP AREA			AREA IN PRODUCTION			AREA ABANDONED			LEASE AREA		
BOG NO	STATUS	CROWN	PRIVATE	TOTAL	CROWN	PRIVATE	TOTAL	CROWN	PRIVATE	TOTAL	CROWN	PRIVATE	TOTAL	TOTAL	1M DEEP	LEASED TO
448 B	VI	55	0	55	4	0	4	0	0	0	0	0	0	0	0	
448 C	VI	287	0	287	33	0	33	0	0	0	0	0	0	0	0	
449	VI	174	0	174	20	0	20	0	0	0	0	0	0	0	0	
449 A	VI	80	0	80	0	0	0	0	0	0	0	0	0	0	0	
449 B	VI	85	0	85	23	0	23	0	0	0	0	0	0	0	0	
449 C	VI	73	0	73	16	0	16	0	0	0	0	0	0	0	0	
450	VI	327	0	327	101	0	101	0	0	0	0	0	0	0	0	
451	VI	147	0	147	28	0	28	0	0	0	0	0	0	0	0	
456	VI	215	0	215	92	0	92	0	0	0	0	0	0	0	0	
457	VI	76	0	76	31	0	31	0	0	0	0	0	0	0	0	
457 A	VI	43	0	43	20	0	20	0	0	0	0	0	0	0	0	
458	VI	15	0	15	6	0	6	0	0	0	0	0	0	0	0	
459	VI	105	0	105	59	0	59	0	0	0	0	0	0	0	0	
460	VI	48	0	48	28	0	28	0	0	0	0	0	0	0	0	
460 A	VI	58	0	58	8	0	8	0	0	0	0	0	0	0	0	
461	VI	44	0	44	13	0	13	0	0	0	0	0	0	0	0	
462	VI	16	0	16	12	0	12	0	0	0	0	0	0	0	0	
462 A	VI	47	0	47	25	0	25	0	0	0	0	0	0	0	0	
465	VI	0	242	242	0	0	0	0	0	0	0	0	0	0	0	
466	VI	141	1142	1283	21	79	100	0	0	0	0	0	0	0	0	
467	VI	0	57	57	0	3	3	0	0	0	0	0	0	0	0	
468	VI	0	107	107	0	0	0	0	0	0	0	0	0	0	0	
468 A	DU	0	335	335	0	26	26	0	0	0	0	0	0	0	0	
469	VI	0	2727	2727	0	2196	2196	0	0	0	0	0	0	0	0	
469 A	VI	0	41	41	0	12	12	0	0	0	0	0	0	0	0	
470	VI	0	44	44	0	14	14	0	0	0	0	0	0	0	0	
470 A	VI	0	65	65	0	23	23	0	0	0	0	0	0	0	0	
473	VI	0	277	277	0	72	72	0	0	0	0	0	0	0	0	
474	VI	0	247	247	0	94	94	0	0	0	0	0	0	0	0	
475	DU	0	459	459	0	79	79	0	0	0	0	0	0	0	0	
476	VI	0	239	239	0	80	80	0	0	0	0	0	0	0	0	
479	VI	370	22	392	140	15	155	0	0	0	0	0	0	0	0	
479 A	VI	34	0	34	9	0	9	0	0	0	0	0	0	0	0	
480	VI	58	0	58	4	0	4	0	0	0	0	0	0	0	0	
480 A	VI	54	0	54	24	0	24	0	0	0	0	0	0	0	0	
481	VI	60	0	60	32	0	32	0	0	0	0	0	0	0	0	
482	VI	30	0	30	16	0	16	0	0	0	0	0	0	0	0	
483	VI	18	0	18	3	0	3	0	0	0	0	0	0	0	0	
484	VI	13	0	13	2	0	2	0	0	0	0	0	0	0	0	
486	VI	172	0	172	144	0	144	0	0	0	0	0	0	0	0	

TABLE: N1: SUMMARY OF OWNERSHIP AND LEASE DATA

		PERIPHERAL AREA			1 METER DEEP AREA			AREA IN PRODUCTION			AREA ABANDONED			LEASE AREA		
BOG NO	STATUS	CROWN	PRIVATE	TOTAL	CROWN	PRIVATE	TOTAL	CROWN	PRIVATE	TOTAL	CROWN	PRIVATE	TOTAL	TOTAL	1M DEEP	LEASED TO
486 A	VI	16	0	16	6	0	6	0	0	0	0	0	0	0	0	
486 B	VI	37	0	37	12	0	12	0	0	0	0	0	0	0	0	
487	VI	63	0	63	11	0	11	0	0	0	0	0	0	0	0	
488 A	VI	36	0	36	20	0	20	0	0	0	0	0	0	0	0	
489 A	VI	27	0	27	8	0	8	0	0	0	0	0	0	0	0	
490	VI	18	0	18	0	0	0	0	0	0	0	0	0	0	0	
490 A	VI	90	0	90	25	0	25	0	0	0	0	0	0	0	0	
491	VI	117	53	170	62	34	96	0	0	0	0	0	0	0	0	
491 A	VI	17	2	19	5	0	5	0	0	0	0	0	0	0	0	
492	VI	20	78	98	0	28	28	0	0	0	0	0	0	0	0	
493 A	VI	59	1	60	50	0	50	0	0	0	0	0	0	0	0	
494	VI	329	0	329	194	0	194	0	0	0	0	0	0	0	0	
494 A	VI	85	0	85	10	0	10	0	0	0	0	0	0	0	0	
494 B	VI	41	0	41	17	0	17	0	0	0	0	0	0	0	0	
495	VI	24	0	24	7	0	7	0	0	0	0	0	0	0	0	
496	VI	70	0	70	43	0	43	0	0	0	0	0	0	0	0	
496 A	VI	39	0	39	16	0	16	0	0	0	0	0	0	0	0	
497	VI	142	0	142	90	0	90	0	0	0	0	0	0	0	0	
497 A	VI	47	0	47	20	0	20	0	0	0	0	0	0	0	0	
498	VI	177	0	177	140	0	140	0	0	0	0	0	0	0	0	
502	VI	114	4	118	42	0	42	0	0	0	0	0	0	0	0	
502 A	VI	70	0	70	40	0	40	0	0	0	0	0	0	0	0	
503	VI	180	0	180	68	0	68	0	0	0	0	0	0	0	0	
503 A	VI	38	0	38	24	0	24	0	0	0	0	0	0	0	0	
506 A	VI	58	0	58	37	0	37	0	0	0	0	0	0	0	0	
507	VI	257	50	307	165	30	195	0	0	0	0	0	0	0	0	
507 A	VI	11	109	120	1	41	42	0	0	0	0	0	0	0	0	
508	VI	138	0	138	47	0	47	0	0	0	0	0	0	0	0	
510	VI	81	0	81	51	0	51	0	0	0	0	0	0	0	0	
511	VI	58	0	58	25	0	25	0	0	0	0	0	0	0	0	
512	VI	128	0	128	63	0	63	0	0	0	0	0	0	0	0	
513	VI	198	0	198	71	0	71	0	0	0	0	0	0	0	0	
513 A	VI	40	0	40	16	0	16	0	0	0	0	0	0	0	0	
513 B	VI	43	0	43	19	0	19	0	0	0	0	0	0	0	0	
514	VI	0	95	95	0	57	57	0	0	0	0	0	0	0	0	
514 A	VI	27	0	27	17	0	17	0	0	0	0	0	0	0	0	
515	VI	0	153	153	0	68	68	0	0	0	0	0	0	0	0	
516	VI	84	93	177	58	65	123	0	0	0	0	0	0	0	0	
517	HO	243	9	252	150	1	151	86	0	86	0	0	0	184	136	PORTAGE PEAT MOSSLTD
517 A	VI	0	82	82	0	38	38	0	0	0	0	0	0	0	0	

TABLE: N1: SUMMARY OF OWNERSHIP AND LEASE DATA

BOG NO		STATUS	PERIPHERAL AREA			1 METER DEEP AREA			AREA IN PRODUCTION			AREA ABANDONED			LEASE AREA		LEASED TO
			CROWN	PRIVATE	TOTAL	CROWN	PRIVATE	TOTAL	CROWN	PRIVATE	TOTAL	CROWN	PRIVATE	TOTAL	TOTAL	1M DEEP	
518		VI	17	88	105	14	42	56	0	0	0	0	0	0	0	0	
522		HO	164	29	193	145	16	161	0	0	0	0	0	0	165	145	HEVECO LTD.
522	A	VI	18	38	56	10	11	21	0	0	0	0	0	0	0	0	
523		VI	44	12	56	27	0	27	0	0	0	0	0	0	0	0	
524		HO	909	327	1236	841	287	1128	248	37	285	0	0	0	909	841	HEVECO LTD.
525		VI	63	258	321	24	143	167	0	0	0	0	0	0	0	0	
525	A	VI	0	37	37	0	21	21	0	0	0	0	0	0	0	0	
526		VI	153	80	233	59	7	66	0	0	0	0	0	0	0	0	
527		AB	315	290	605	240	137	377	0	0	0	97	88	185	296	240	FISONS-WESTERN CORP.
528		VI	56	83	139	41	18	59	0	0	0	0	0	0	0	0	
528	A	VI	0	27	27	0	8	8	0	0	0	0	0	0	0	0	
529		HO	663	311	974	468	140	608	148	8	156	0	0	0	612	432	FAFARD PEAT MOSS CO.
530		HO	416	67	483	387	41	428	152	12	164	113	0	113	362	337	FAFARD PEAT MOSS CO.
531		VI	30	50	80	7	2	9	0	0	0	0	0	0	0	0	
531	A	VI	30	2	32	23	0	23	0	0	0	0	0	0	0	0	
532		HO	370	206	576	360	134	494	274	50	324	0	0	0	370	360	FAFARD PEAT MOSS CO.
536		VI	218	47	265	201	19	220	0	0	0	0	0	0	0	0	
537		VI	22	126	148	6	47	53	0	0	0	0	0	0	0	0	
541		VI	0	106	106	0	85	85	0	0	0	0	0	0	0	0	
541	A	VI	0	40	40	0	22	22	0	0	0	0	0	0	0	0	
542		VI	0	192	192	0	77	77	0	0	0	0	0	0	0	0	
544		VI	88	7	95	57	3	60	0	0	0	0	0	0	0	0	
546		VI	18	20	38	9	10	19	0	0	0	0	0	0	0	0	
547		VI	180	0	180	127	0	127	0	0	0	0	0	0	0	0	
548		VI	80	26	106	11	56	67	0	0	0	0	0	0	0	0	
549		VI	0	123	123	0	91	91	0	0	0	0	0	0	0	0	
550		VI	0	67	67	0	51	51	0	0	0	0	0	0	0	0	
551		VI	136	66	202	103	43	146	0	0	0	0	0	0	0	0	
551	A	VI	28	34	62	13	22	35	0	0	0	0	0	0	0	0	
552		VI	410	0	410	353	0	353	0	0	0	0	0	0	0	0	
553		VI	134	28	162	116	23	139	0	0	0	0	0	0	0	0	
553	A	VI	32	0	32	10	0	10	0	0	0	0	0	0	0	0	
554		VI	302	0	302	130	0	130	0	0	0	0	0	0	0	0	
554	A	VI	37	0	37	15	0	15	0	0	0	0	0	0	0	0	
555		VI	23	0	23	15	0	15	0	0	0	0	0	0	0	0	
559		VI	121	0	121	54	0	54	0	0	0	0	0	0	0	0	
559	A	VI	30	0	30	12	0	12	0	0	0	0	0	0	0	0	
561		HO	137	188	325	118	125	243	114	77	191	0	0	0	137	118	GRAND ANSE PEAT M.CO
562		HO	373	168	541	331	48	379	288	51	339	0	0	0	373	331	FISONS-WESTERN CORP.
563		VI	0	73	73	0	43	43	0	0	0	0	0	0	0	0	

TABLE: N1: SUMMARY OF OWNERSHIP AND LEASE DATA

		PERIPHERAL AREA			1 METER DEEP AREA			AREA IN PRODUCTION			AREA ABANDONED			LEASE AREA		
BOG NO	STATUS	CROWN	PRIVATE	TOTAL	CROWN	PRIVATE	TOTAL	CROWN	PRIVATE	TOTAL	CROWN	PRIVATE	TOTAL	TOTAL	1M DEEP	LEASED TO
564	VI	113	21	134	34	0	34	0	0	0	0	0	0	0	0	
565 A	VI	64	43	107	46	15	61	0	0	0	0	0	0	0	0	
566	VI	31	0	31	18	0	18	0	0	0	0	0	0	0	0	
567	HO	65	38	103	53	21	74	0	0	0	0	0	0	65	53	TOURBE CHAISSON LTEE
568	HO	206	134	340	198	66	264	128	16	144	0	0	0	206	198	ACADIAN PEAT MOSS CO
569	HO	250	40	290	196	30	226	50	0	50	0	0	0	231	196	PIGEON HILL LTEE.
570	VI	16	95	111	15	50	65	0	0	0	0	0	0	0	0	
574	VI	25	92	117	25	55	80	0	0	0	0	0	0	0	0	
575	VI	45	73	118	23	48	71	0	0	0	0	0	0	0	0	
575 A	VI	0	16	16	0	6	6	0	0	0	0	0	0	0	0	
576	HO	113	104	217	105	35	140	63	10	73	0	0	0	113	104	ST.RAPHAEL PEAT MOSS
577	VI	42	35	77	37	17	54	0	0	0	0	0	0	0	0	
578	VI	63	22	85	45	11	56	0	0	0	0	0	0	0	0	
578 A	VI	3	34	37	2	17	19	0	0	0	0	0	0	0	0	
579	VI	0	34	34	0	25	25	0	0	0	0	0	0	0	0	
579 A	VI	0	32	32	0	22	22	0	0	0	0	0	0	0	0	
580	HO	130	91	221	120	50	170	54	7	61	0	0	0	131	120	LAMEQUE PEAT MOSS LT
581	VI	725	45	770	653	27	680	0	0	0	0	0	0	0	0	
582	VI	1707	465	2172	1677	167	1844	0	0	0	0	0	0	0	0	
583	VI	55	33	88	31	19	50	0	0	0	0	0	0	0	0	
585	VI	9	63	72	2	6	8	0	0	0	0	0	0	0	0	
587	VI	10	20	30	8	11	19	0	0	0	0	0	0	0	0	
588	VI	28	2	30	17	1	18	0	0	0	0	0	0	0	0	
589	VI	22	5	28	14	3	17	0	0	0	0	0	0	0	0	
589 A	VI	21	14	35	16	4	20	0	0	0	0	0	0	0	0	
590	VI	60	40	100	46	7	53	0	0	0	0	0	0	0	0	
591	HO	978	256	1234	909	151	1060	288	55	343	0	0	0	984	914	FISONS-WESTERN CORP
592	HO	365	224	589	318	82	400	0	0	0	0	0	0	339	318	FISONS-WESTERN CORP.
592 A	VI	2	43	45	0	0	0	0	0	0	0	0	0	0	0	
593	VI	0	88	88	0	28	28	0	0	0	0	0	0	0	0	
597	VI	0	151	151	0	96	96	0	0	0	0	0	0	0	0	
598	VI	0	210	210	0	135	135	0	0	0	0	0	0	0	0	
599	VI	28	34	62	20	9	29	0	0	0	0	0	0	0	0	
600	HO	179	215	394	128	22	150	113	1	114	0	0	0	180	119	ATKINS & DURBROW LTD
600 A	VI	5	13	18	0	0	0	0	0	0	0	0	0	0	0	
601	VI	18	0	18	4	0	4	0	0	0	0	0	0	0	0	
606	VI	84	29	113	46	7	53	0	0	0	0	0	0	0	0	
608 A	VI	44	0	44	18	0	18	0	0	0	0	0	0	0	0	
609	VI	51	0	51	8	0	8	0	0	0	0	0	0	0	0	
610	VI	20	0	20	0	0	0	0	0	0	0	0	0	0	0	

TABLE: N1: SUMMARY OF OWNERSHIP AND LEASE DATA

		PERIPHERAL AREA			1 METER DEEP AREA			AREA IN PRODUCTION			AREA ABANDONED			LEASE AREA		
BOG NO	STATUS	CROWN	PRIVATE	TOTAL	CROWN	PRIVATE	TOTAL	CROWN	PRIVATE	TOTAL	CROWN	PRIVATE	TOTAL	TOTAL	1M DEEP	LEASED TO
611	VI	57	0	57	20	0	20	0	0	0	0	0	0	0	0	
612	VI	39	0	39	12	0	12	0	0	0	0	0	0	0	0	
615	VI	0	94	94	0	71	71	0	0	0	0	0	0	0	0	
618	VI	70	3	73	49	2	51	0	0	0	0	0	0	0	0	
619	VI	32	0	32	25	0	25	0	0	0	0	0	0	0	0	
620	VI	23	4	27	17	2	19	0	0	0	0	0	0	0	0	
621	VI	25	0	25	17	0	17	0	0	0	0	0	0	0	0	
622	VI	10	25	35	5	18	23	0	0	0	0	0	0	0	0	
623	VI	49	23	72	27	13	40	0	0	0	0	0	0	0	0	
625	VI	1	26	27	0	20	20	0	0	0	0	0	0	0	0	
627	VI	16	23	39	10	11	21	0	0	0	0	0	0	0	0	
628	VI	62	22	84	40	6	46	0	0	0	0	0	0	0	0	
629	VI	80	13	93	44	2	46	0	0	0	0	0	0	0	0	
631	VI	19	188	207	11	98	109	0	0	0	0	0	0	0	0	
632	VI	28	0	28	15	0	15	0	0	0	0	0	0	0	0	
633	VI	69	21	90	43	16	59	0	0	0	0	0	0	0	0	
634	VI	22	17	39	10	8	18	0	0	0	0	0	0	0	0	
635	VI	0	34	34	0	9	9	0	0	0	0	0	0	0	0	
636	VI	49	0	49	18	0	18	0	0	0	0	0	0	0	0	
638	VI	39	6	45	11	1	12	0	0	0	0	0	0	0	0	
639	VI	0	62	62	0	38	38	0	0	0	0	0	0	0	0	
641	VI	0	151	151	0	44	44	0	0	0	0	0	0	0	0	
642	VI	0	86	86	0	50	50	0	0	0	0	0	0	0	0	
643	VI	0	13	13	0	10	10	0	0	0	0	0	0	0	0	
644	VI	0	22	22	0	16	16	0	0	0	0	0	0	0	0	
645	VI	0	51	51	0	25	25	0	0	0	0	0	0	0	0	
646	VI	11	315	326	0	144	144	0	0	0	0	0	0	0	0	
648	VI	0	63	63	0	31	31	0	0	0	0	0	0	0	0	
649	VI	0	32	32	0	22	22	0	0	0	0	0	0	0	0	
650	VI	0	259	259	0	102	102	0	0	0	0	0	0	0	0	
651	VI	18	77	95	9	35	44	0	0	0	0	0	0	0	0	
652	DU	0	717	717	0	364	364	0	0	0	0	0	0	0	0	
652 A	VI	0	82	82	0	34	34	0	0	0	0	0	0	0	0	
653	DU	18	172	190	17	73	90	0	0	0	0	0	0	0	0	
654	VI	0	132	132	0	49	49	0	0	0	0	0	0	0	0	
655	VI	0	150	150	0	100	100	0	0	0	0	0	0	0	0	
656	VI	28	215	243	23	134	157	0	0	0	0	0	0	0	0	
657	VI	0	57	57	0	41	41	0	0	0	0	0	0	0	0	
658	VI	0	59	59	0	39	39	0	0	0	0	0	0	0	0	
660	VI	104	65	169	85	41	126	0	0	0	0	0	0	0	0	

TABLE: M1: SUMMARY OF OWNERSHIP AND LEASE DATA

BOG NO	STATUS	PERIPHERAL AREA			1 METER DEEP AREA			AREA IN PRODUCTION			AREA ABANDONED			LEASE AREA		LEASED TO
		CROWN	PRIVATE	TOTAL	CROWN	PRIVATE	TOTAL	CROWN	PRIVATE	TOTAL	CROWN	PRIVATE	TOTAL	TOTAL	1M DEEP	
661	VI	0	142	142	0	90	90	0	0	0	0	0	0	0	0	
662	VI	0	24	24	0	16	16	0	0	0	0	0	0	0	0	
664	VI	134	0	134	61	0	61	0	0	0	0	0	0	0	0	
667	VI	112	0	112	55	0	55	0	0	0	0	0	0	0	0	
667 A	VI	37	0	37	16	0	16	0	0	0	0	0	0	0	0	
667 B	VI	39	5	44	13	2	15	0	0	0	0	0	0	0	0	
667 C	VI	49	0	49	25	0	25	0	0	0	0	0	0	0	0	
668	VI	38	0	38	27	0	27	0	0	0	0	0	0	0	0	
669	VI	59	0	59	21	0	21	0	0	0	0	0	0	0	0	
670	VI	68	0	68	5	0	5	0	0	0	0	0	0	0	0	
672 A	VI	69	0	69	36	0	36	0	0	0	0	0	0	0	0	
672 B	VI	148	0	148	60	0	60	0	0	0	0	0	0	0	0	
678	VI	38	1	39	31	0	31	0	0	0	0	0	0	0	0	
679	VI	88	0	88	31	0	31	0	0	0	0	0	0	0	0	
680	VI	26	0	26	22	0	22	0	0	0	0	0	0	0	0	
681	VI	34	0	34	22	0	22	0	0	0	0	0	0	0	0	
684	VI	151	29	180	90	10	100	0	0	0	0	0	0	0	0	
684 A	VI	95	0	95	32	0	32	0	0	0	0	0	0	0	0	
688	DU	0	340	340	0	6	6	0	0	0	0	0	0	0	0	
689 A	VI	39	0	39	0	0	0	0	0	0	0	0	0	0	0	
690	VI	0	110	110	0	49	49	0	0	0	0	0	0	0	0	
691	VI	0	105	105	0	34	34	0	0	0	0	0	0	0	0	
692	VI	0	282	282	0	60	60	0	0	0	0	0	0	0	0	
693	VI	0	96	96	0	8	8	0	0	0	0	0	0	0	0	
700	VI	68	33	101	4	3	7	0	0	0	0	0	0	0	0	
703	VI	37	2	39	25	1	26	0	0	0	0	0	0	0	0	
703 A	VI	66	0	66	2	0	2	0	0	0	0	0	0	0	0	
707	VI	275	298	573	192	103	295	0	0	0	0	0	0	0	0	
707 A	VI	0	117	117	0	25	25	0	0	0	0	0	0	0	0	
708	VI	269	0	269	53	0	53	0	0	0	0	0	0	0	0	
708 A	VI	85	0	85	44	0	44	0	0	0	0	0	0	0	0	
709	VI	148	22	170	71	7	78	0	0	0	0	0	0	0	0	
710	VI	101	0	101	66	0	66	0	0	0	0	0	0	0	0	
711	VI	10	40	50	0	15	15	0	0	0	0	0	0	0	0	
712	VI	106	0	106	50	0	50	0	0	0	0	0	0	0	0	
713	VI	443	66	509	279	5	284	0	0	0	0	0	0	0	0	
716	VI	149	25	174	107	12	119	0	0	0	0	0	0	0	0	
717	VI	143	20	163	0	0	0	0	0	0	0	0	0	0	0	
717 A	VI	63	0	63	23	0	23	0	0	0	0	0	0	0	0	
718	VI	91	80	171	24	24	48	0	0	0	0	0	0	0	0	

TABLE: N1: SUMMARY OF OWNERSHIP AND LEASE DATA

		PERIPHERAL AREA			1 METER DEEP AREA			AREA IN PRODUCTION			AREA ABANDONED			LEASE AREA		
BOG NO	STATUS	CROWN	PRIVATE	TOTAL	CROWN	PRIVATE	TOTAL	CROWN	PRIVATE	TOTAL	CROWN	PRIVATE	TOTAL	TOTAL	1M DEEP	LEASEC TO
718 A	VI	0	28	28	0	12	12	0	0	0	0	0	0	0	0	
722	VI	147	13	160	66	8	74	0	0	0	0	0	0	0	0	
723	VI	314	0	314	72	0	72	0	0	0	0	0	0	0	0	
723 A	VI	24	15	39	17	11	28	0	0	0	0	0	0	0	0	
723 B	VI	63	0	63	37	0	37	0	0	0	0	0	0	0	0	
723 C	VI	40	0	40	23	0	23	0	0	0	0	0	0	0	0	
724	VI	0	86	86	0	62	62	0	0	0	0	0	0	0	0	
725	VI	0	65	65	0	31	31	0	0	0	0	0	0	0	0	
726	VI	0	55	55	0	13	13	0	0	0	0	0	0	0	0	
727	VI	46	0	46	19	0	19	0	0	0	0	0	0	0	0	
728	VI	150	0	150	103	0	103	0	0	0	0	0	0	0	0	
729	VI	76	17	93	48	1	49	0	0	0	0	0	0	0	0	
729 A	VI	79	15	94	47	6	53	0	0	0	0	0	0	0	0	
731	VI	296	10	306	114	0	114	0	0	0	0	0	0	0	0	
733	VI	189	39	228	88	0	88	0	0	0	0	0	0	0	0	
736	VI	0	250	250	0	144	144	0	0	0	0	0	0	0	0	
737	VI	0	400	400	0	213	213	0	0	0	0	0	0	0	0	
738	VI	0	48	48	0	18	18	0	0	0	0	0	0	0	0	
738 A	VI	0	230	230	0	77	77	0	0	0	0	0	0	0	0	
740	VI	0	105	105	0	59	59	0	0	0	0	0	0	0	0	
742	VI	0	76	76	0	54	54	0	0	0	0	0	0	0	0	
744	VI	0	217	217	0	115	115	0	0	0	0	0	0	0	0	
744 A	VI	0	154	154	0	86	86	0	0	0	0	0	0	0	0	
745	VI	0	85	85	0	58	58	0	0	0	0	0	0	0	0	
749	VI	0	225	225	0	110	110	0	0	0	0	0	0	0	0	
750	VI	0	183	183	0	107	107	0	0	0	0	0	0	0	0	
751	VI	113	72	185	76	54	130	0	0	0	0	0	0	0	0	
753	VI	0	118	118	0	23	23	0	0	0	0	0	0	0	0	
758	VI	0	109	108	0	59	59	0	0	0	0	0	0	0	0	
758 A	VI	0	342	342	0	99	99	0	0	0	0	0	0	0	0	
759	VI	0	87	87	0	62	62	0	0	0	0	0	0	0	0	
762	VI	0	71	71	0	38	38	0	0	0	0	0	0	0	0	
763	VI	0	33	33	0	21	21	0	0	0	0	0	0	0	0	
765	VI	0	204	204	0	166	166	0	0	0	0	0	0	0	0	
766 A	VI	18	171	189	11	97	108	0	0	0	0	0	0	0	0	
767	DU	225	633	858	226	405	631	0	0	0	0	0	0	0	0	
767 A	VI	0	52	52	0	38	38	0	0	0	0	0	0	0	0	
767 B	VI	27	83	110	0	14	14	0	0	0	0	0	0	0	0	
768	VI	0	134	134	0	59	59	0	0	0	0	0	0	0	0	
769	VI	0	113	113	0	56	56	0	0	0	0	0	0	0	0	

TABLE: N1: SUMMARY OF OWNERSHIP AND LEASE DATA

			PERIPHERAL AREA			1 METER DEEP AREA			AREA IN PRODUCTION			AREA ABANDONED			LEASE AREA		
BOG NO		STATUS	CROWN	PRIVATE	TOTAL	CROWN	PRIVATE	TOTAL	CROWN	PRIVATE	TOTAL	CROWN	PRIVATE	TOTAL	TOTAL	1M DEEP	LEASED TO
770		VI	528	402	930	440	254	694	0	0	0	0	0	0	0	0	
770	A	VI	32	31	63	2	17	19	0	0	0	0	0	0	0	0	
771		VI	0	137	137	0	74	74	0	0	0	0	0	0	0	0	
772		VI	103	104	207	47	73	120	0	0	0	0	0	0	0	0	
772	A	DU	103	33	136	49	4	53	0	0	0	0	0	0	0	0	
773		VI	39	346	385	38	200	238	0	0	0	0	0	0	0	0	
774		VI	0	154	154	0	91	91	0	0	0	0	0	0	0	0	
775		VI	0	172	172	0	114	114	0	0	0	0	0	0	0	0	
775	A	VI	0	83	83	0	61	61	0	0	0	0	0	0	0	0	
776		VI	44	82	126	32	58	90	0	0	0	0	0	0	0	0	
778		VI	179	384	563	37	219	256	0	0	0	0	0	0	0	0	
779		VI	100	0	100	49	0	49	0	0	0	0	0	0	0	0	
779	A	VI	227	26	253	150	11	161	0	0	0	0	0	0	0	0	
781		VI	183	0	183	41	0	41	0	0	0	0	0	0	0	0	
782		VI	94	99	193	9	0	9	0	0	0	0	0	0	0	0	
783		VI	209	0	209	84	0	84	0	0	0	0	0	0	0	0	
784		VI	641	0	641	331	0	331	0	0	0	0	0	0	0	0	
784	A	VI	166	0	166	61	0	61	0	0	0	0	0	0	0	0	
785		VI	331	56	387	229	45	274	0	0	0	0	0	0	0	0	
785	A	VI	437	137	574	330	96	426	0	0	0	0	0	0	0	0	
785	B	VI	238	0	238	175	0	175	0	0	0	0	0	0	0	0	
786		VI	123	38	161	54	25	79	0	0	0	0	0	0	0	0	
790		VI	376	2	378	139	1	140	0	0	0	0	0	0	0	0	
791		VI	161	15	176	134	5	139	0	0	0	0	0	0	0	0	
791	A	VI	32	23	55	24	3	27	0	0	0	0	0	0	0	0	
792		VI	415	11	426	270	2	272	0	0	0	0	0	0	0	0	
793	A	VI	99	13	112	65	2	67	0	0	0	0	0	0	0	0	
794		VI	47	0	47	11	0	11	0	0	0	0	0	0	0	0	
794	A	VI	32	0	32	8	0	8	0	0	0	0	0	0	0	0	
795		VI	136	38	174	98	32	130	0	0	0	0	0	0	0	0	
795	A	VI	56	43	99	47	17	64	0	0	0	0	0	0	0	0	
796		VI	342	0	342	52	0	52	0	0	0	0	0	0	0	0	
797		VI	103	3	106	72	1	73	0	0	0	0	0	0	0	0	
798		VI	73	0	73	51	0	51	0	0	0	0	0	0	0	0	
798	A	VI	130	13	143	84	6	90	0	0	0	0	0	0	0	0	
799		VI	131	78	209	2	21	23	0	0	0	0	0	0	0	0	
802		VI	0	78	78	0	52	52	0	0	0	0	0	0	0	0	
803		VI	0	342	342	0	251	251	0	0	0	0	0	0	0	0	
804		VI	11	100	111	6	66	72	0	0	0	0	0	0	0	0	
804	A	VI	0	28	28	0	11	11	0	0	0	0	0	0	0	0	

TABLE: H1: SUMMARY OF OWNERSHIP AND LEASE DATA

		PERIPHERAL AREA			1 METER DEEP AREA			AREA IN PRODUCTION			AREA ABANDONED			LEASE AREA		
BOG NO	STATUS	CROWN	PRIVATE	TOTAL	CROWN	PRIVATE	TOTAL	CROWN	PRIVATE	TOTAL	CROWN	PRIVATE	TOTAL	TOTAL	1M DEEP	LEASED TO
805	DU	861	4704	5565	180	84	264	0	0	0	0	0	0	0	0	
809	VI	0	111	111	0	17	17	0	0	0	0	0	0	0	0	
809 A	VI	0	108	108	0	55	55	0	0	0	0	0	0	0	0	
809 B	VI	0	129	129	0	65	65	0	0	0	0	0	0	0	0	
811	VI	234	101	335	123	10	133	0	0	0	0	0	0	0	0	
811 A	VI	190	91	281	30	10	40	0	0	0	0	0	0	0	0	
812	VI	95	88	183	52	34	86	0	0	0	0	0	0	0	0	
813	VI	0	407	407	0	201	201	0	0	0	0	0	0	0	0	
814	VI	146	1	147	38	0	38	0	0	0	0	0	0	0	0	
814 A	VI	91	0	91	60	0	60	0	0	0	0	0	0	0	0	
815	DU	40	337	377	31	125	156	0	0	0	0	0	0	0	0	
816	VI	23	150	173	13	110	123	0	0	0	0	0	0	0	0	
816 A	VI	109	0	109	17	0	17	0	0	0	0	0	0	0	0	
817	VI	0	180	180	0	117	117	0	0	0	0	0	0	0	0	
817 A	VI	99	70	169	52	36	88	0	0	0	0	0	0	0	0	
820	VI	0	61	61	0	26	26	0	0	0	0	0	0	0	0	
821	VI	0	54	54	0	36	36	0	0	0	0	0	0	0	0	
822	VI	0	90	90	0	32	32	0	0	0	0	0	0	0	0	
823	DU	0	33	33	0	11	11	0	0	0	0	0	0	0	0	
828	VI	0	121	121	0	78	78	0	0	0	0	0	0	0	0	
832	DU	5	84	89	0	66	66	0	0	0	0	0	0	0	0	
834	DU	79	81	160	71	52	123	0	0	0	0	0	0	0	0	
835	DU	3	54	57	1	23	24	0	0	0	0	0	0	0	0	
836	DU	79	87	166	61	55	116	0	0	0	0	0	0	0	0	
836 A	VI	41	7	48	26	1	27	0	0	0	0	0	0	0	0	
837	VI	0	37	37	0	16	16	0	0	0	0	0	0	0	0	
838	VI	0	99	99	0	44	44	0	0	0	0	0	0	0	0	
841	VI	139	0	139	94	0	94	0	0	0	0	0	0	0	0	
841 A	VI	50	0	50	26	0	26	0	0	0	0	0	0	0	0	
842	VI	115	0	115	50	0	50	0	0	0	0	0	0	0	0	
843	VI	128	0	128	38	0	38	0	0	0	0	0	0	0	0	
844	VI	72	0	72	29	0	29	0	0	0	0	0	0	0	0	
846	VI	0	437	437	0	373	373	0	0	0	0	0	0	0	0	
846 A	VI	0	26	26	0	16	16	0	0	0	0	0	0	0	0	
846 B	VI	0	26	26	0	12	12	0	0	0	0	0	0	0	0	
846 C	VI	32	24	56	12	4	16	0	0	0	0	0	0	0	0	
849	DU	0	177	177	0	84	84	0	0	0	0	0	0	0	0	
849 A	VI	0	81	81	0	0	0	0	0	0	0	0	0	0	0	
850	VI	0	67	67	0	45	45	0	0	0	0	0	0	0	0	
851	VI	0	100	100	0	70	70	0	0	0	0	0	0	0	0	

TABLE: N1: SUMMARY OF OWNERSHIP AND LEASE DATA

		PERIPHERAL AREA			1 METER DEEP AREA			AREA IN PRODUCTION			AREA ABANDONED			LEASE AREA		
BOG NO	STATUS	CROWN	PRIVATE	TOTAL	CROWN	PRIVATE	TOTAL	CROWN	PRIVATE	TOTAL	CROWN	PRIVATE	TOTAL	TOTAL	1M DEEP	LEASED TO
852	VI	0	120	120	0	71	71	0	0	0	0	0	0	0	0	
855	VI	0	53	53	0	24	24	0	0	0	0	0	0	0	0	
857	VI	0	62	62	0	45	45	0	0	0	0	0	0	0	0	
858	VI	1	69	70	0	17	17	0	0	0	0	0	0	0	0	
859	VI	0	34	34	0	19	19	0	0	0	0	0	0	0	0	
860	VI	0	58	58	0	36	36	0	0	0	0	0	0	0	0	
861	VI	0	45	45	0	17	17	0	0	0	0	0	0	0	0	ROOSEVELT INT.PARK
862	VI	0	131	131	0	68	68	0	0	0	0	0	0	0	0	ROOSEVELT INT.PARK
873	VI	0	34	34	0	20	20	0	0	0	0	0	0	0	0	
873 A	VI	0	124	124	0	57	57	0	0	0	0	0	0	0	0	
874	VI	0	41	41	0	29	29	0	0	0	0	0	0	0	0	
875	VI	0	12	12	0	9	9	0	0	0	0	0	0	0	0	
876	VI	0	15	15	0	10	10	0	0	0	0	0	0	0	0	
877	VI	0	22	22	0	6	6	0	0	0	0	0	0	0	0	
878	VI	0	8	8	0	0	0	0	0	0	0	0	0	0	0	
879	VI	11	76	87	8	43	51	0	0	0	0	0	0	0	0	
880	DU	0	216	216	0	145	145	0	0	0	0	0	0	0	0	
881	DU	0	236	236	0	156	156	0	0	0	0	0	0	0	0	
882	VI	0	88	88	0	65	65	0	0	0	0	0	0	0	0	
883	DU	0	246	246	0	217	217	0	0	0	0	0	0	0	0	
884	VI	0	551	551	0	312	312	0	0	0	0	0	0	0	0	
885	VI	0	28	28	0	20	20	0	0	0	0	0	0	0	0	
886	DU	0	59	59	0	46	46	0	0	0	0	0	0	0	0	
887	DU	0	265	265	0	118	118	0	0	0	0	0	0	0	0	
887 A	VI	0	86	86	0	80	80	0	0	0	0	0	0	0	0	
888	DU	0	194	194	0	71	71	0	0	0	0	0	0	0	0	
888 A	DU	0	128	128	0	68	68	0	0	0	0	0	0	0	0	
891	VI	0	474	474	0	317	317	0	0	0	0	0	0	0	0	
894	VI	0	32	32	0	23	23	0	0	0	0	0	0	0	0	
894 A	VI	0	80	80	0	49	49	0	0	0	0	0	0	0	0	
900	VI	0	55	55	0	33	33	0	0	0	0	0	0	0	0	
901	VI	0	32	32	0	19	19	0	0	0	0	0	0	0	0	
902	VI	0	33	33	0	22	22	0	0	0	0	0	0	0	0	
903	VI	0	36	36	0	6	6	0	0	0	0	0	0	0	0	
904	VI	0	33	33	0	4	4	0	0	0	0	0	0	0	0	
905	VI	0	35	35	0	14	14	0	0	0	0	0	0	0	0	
906	VI	0	306	306	0	255	255	0	0	0	0	0	0	0	0	
907	VI	0	43	43	0	29	29	0	0	0	0	0	0	0	0	
911	VI	73	0	73	43	0	43	0	0	0	0	0	0	0	0	
912	VI	26	0	26	8	0	8	0	0	0	0	0	0	0	0	

TABLE: N1: SUMMARY OF OWNERSHIP AND LEASE DATA

		PERIPHERAL AREA			1 METER DEEP AREA			AREA IN PRODUCTION			AREA ABANDONED			LEASE AREA		
BOG NO	STATUS	CROWN	PRIVATE	TOTAL	CROWN	PRIVATE	TOTAL	CROWN	PRIVATE	TOTAL	CROWN	PRIVATE	TOTAL	TOTAL	1M DEEP	LEASED TO
913	VI	50	0	50	0	0	0	0	0	0	0	0	0	0	0	
914	VI	41	0	41	18	0	18	0	0	0	0	0	0	0	0	
915	VI	45	0	45	11	0	11	0	0	0	0	0	0	0	0	
919	VI	37	0	37	16	0	16	0	0	0	0	0	0	0	0	
920	VI	30	0	30	18	0	18	0	0	0	0	0	0	0	0	
921	VI	77	0	77	28	0	28	0	0	0	0	0	0	0	0	
923	VI	33	0	33	18	0	18	0	0	0	0	0	0	0	0	
924	VI	35	0	35	15	0	15	0	0	0	0	0	0	0	0	
925	VI	22	0	22	13	0	13	0	0	0	0	0	0	0	0	
926	VI	48	0	48	22	0	22	0	0	0	0	0	0	0	0	
927	VI	52	0	52	31	0	31	0	0	0	0	0	0	0	0	
928	VI	25	0	25	17	0	17	0	0	0	0	0	0	0	0	
929	VI	33	23	56	21	21	42	0	0	0	0	0	0	0	0	
930	VI	37	0	37	16	0	16	0	0	0	0	0	0	0	0	
931	VI	0	31	31	0	23	23	0	0	0	0	0	0	0	0	
936	VI	0	24	24	0	19	19	0	0	0	0	0	0	0	0	
937	VI	0	44	44	0	32	32	0	0	0	0	0	0	0	0	
		85677	46847	132524	46935	20932	67867	2243	358	2601	210	88	298	7653	6779	

```
TABLE: N1 PART2      STATUS TOTALS

 771  VI  VIRGIN
  21  HO  HORTICULTURAL PEAT EXTRACTION
   0  FU  FUEL PEAT EXTRACTION
   0  AG  PRODUCTION OF AGRICULTURAL CROPS.
   0  SI  SILVICULTURAL USE
   0  RE  COMMERCIAL USE RESTRICTED.
   1  AB  PRODUCTION AREA ABANDONED.
  24  DU  ENHANCED WILDLIFE HABITAT
   0      NONE OF THE ABOVE
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TABLE: P1: AREA AND VOLUME SUMMARY

BOGNO	MAXIMUM DEPTH (DM)	AVERAGE DEPTH (DM)				AREA (HA)		VOLUME (MCM)				AVG. DEGREE OF HUM.			
			1 METER DEEP AREA						1 METER DEEP AREA				1 METER DEEP AREA		
		TOTAL AREA	O-ALL	SURF.	HUMI.	TOTAL	>=1M DEPTH	TOTAL AREA	O-ALL	SURF.	HUMI.	TOTAL AREA	O-ALL	SURF.	HUMI.
1	45.0	17.5	20.0	11.2	8.9	203	141	3.54	2.83	1.57	1.25	4.1	4.2	2.6	6.1
1 A	7.0	4.3	0.0	0.0	0.0	57	0	0.26	0.00	0.00	0.00	3.8	0.0	0.0	0.0
3	77.0	35.4	40.2	31.3	8.8	567	323	14.20	12.98	10.12	2.86	3.9	3.9	3.3	6.0
3 A	13.0	10.5	11.0	6.7	4.3	51	12	0.33	0.13	0.08	0.05	4.4	4.0	2.1	6.9
3 B	14.0	10.6	12.0	7.8	4.3	65	29	0.53	0.35	0.22	0.12	4.1	4.1	2.7	6.7
4	63.0	30.7	32.6	20.5	12.1	536	388	13.30	12.64	7.96	4.68	4.3	4.4	2.9	6.8
5	45.0	22.1	26.1	20.7	5.4	240	166	4.71	4.34	3.44	0.89	3.5	3.5	2.8	6.1
5 A	45.0	20.2	24.7	16.0	8.7	76	33	1.03	0.82	0.53	0.29	4.7	4.6	3.1	7.3
6	55.0	32.4	34.7	25.5	9.1	301	206	7.62	7.14	5.26	1.88	3.8	3.8	3.0	6.1
6 A	7.0	5.2	0.0	0.0	0.0	83	0	0.41	0.00	0.00	0.00	3.9	0.0	0.0	0.0
7	46.0	21.1	27.3	16.8	10.5	208	117	3.65	3.20	1.97	1.23	4.2	4.2	3.0	6.2
8	13.0	9.0	11.5	4.0	7.5	72	12	0.44	0.14	0.05	0.09	4.9	5.7	2.6	7.4
9	68.0	25.0	31.9	16.9	15.0	330	203	6.77	6.47	3.43	3.04	4.4	4.4	3.1	6.0
9 A	35.0	22.6	22.6	13.0	9.6	39	22	0.58	0.50	0.29	0.21	4.6	4.6	3.1	5.7
10	70.0	26.8	29.9	15.5	14.4	393	278	8.89	8.31	4.31	4.01	4.6	4.6	3.1	6.2
11	53.0	25.8	29.9	18.1	11.7	333	210	6.89	6.28	3.81	2.47	4.5	4.5	2.9	7.0
12	58.0	32.7	37.6	24.6	13.0	209	156	6.13	5.87	3.84	2.02	3.9	4.0	3.0	5.7
12 A	25.0	15.3	16.8	5.6	11.2	129	34	1.05	0.57	0.19	0.38	4.8	4.8	2.3	6.0
13	36.0	18.7	20.3	11.1	9.2	301	196	4.51	3.98	2.17	1.81	4.2	4.2	2.7	5.9
14	49.0	25.7	29.2	14.8	14.4	202	117	3.84	3.42	1.73	1.68	4.7	4.7	2.9	6.6

TABLE: P1: AREA AND VOLUME SUMMARY

		AVERAGE DEPTH (DM)				AREA (HA)		VOLUME (MCM)				AVG. DEGREE OF HUM.			
BOGNO	MAXIMUM DEPTH (DM)	TOTAL AREA	1 METER DEEP AREA O-ALL	SURF.	HUMI.	TOTAL	>=1M DEPTH	TOTAL AREA	1 METER DEEP AREA O-ALL	SURF.	HUMI.	TOTAL AREA	1 METER DEEP AREA O-ALL	SURF.	HUMI.
14 A	14.0	11.2	11.2	5.6	5.6	72	9	0.42	0.10	0.05	0.05	5.4	5.4	3.8	7.1
16	61.0	26.1	30.7	21.7	9.0	459	283	9.57	8.69	6.15	2.53	3.7	3.8	2.8	6.1
17	55.0	24.8	26.2	17.9	8.3	341	178	5.47	4.66	3.18	1.48	4.0	4.0	3.0	6.0
17 A	50.0	24.0	27.8	16.4	11.4	141	87	2.69	2.42	1.43	0.99	4.1	4.1	3.2	5.4
19	27.0	12.7	18.2	14.5	3.7	199	42	1.55	0.76	0.61	0.15	3.7	3.5	2.9	6.3
19 A	22.0	14.8	14.8	10.0	4.8	41	10	0.30	0.15	0.10	0.05	4.4	4.4	3.1	7.1
20	44.0	22.2	26.1	20.6	5.4	183	116	3.36	3.03	2.40	0.63	3.6	3.6	2.8	6.3
21	32.0	15.2	21.8	17.5	4.2	245	109	3.05	2.37	1.91	0.46	3.5	3.5	2.7	6.9
22	45.0	17.6	21.8	11.9	9.9	235	112	3.05	2.44	1.33	1.11	4.1	4.1	2.5	6.1
22 A	18.0	11.3	14.0	6.0	8.0	41	3	0.23	0.04	0.02	0.02	4.2	4.5	2.8	5.7
22 B	40.0	26.3	26.3	15.8	10.5	38	28	0.78	0.73	0.44	0.29	3.7	3.7	2.9	4.9
23	54.0	21.3	24.5	15.9	8.6	283	178	4.89	4.36	2.83	1.53	4.1	4.1	2.8	6.5
23 A	60.0	21.5	22.9	15.7	7.2	96	33	1.07	0.76	0.52	0.24	4.0	3.9	3.0	5.9
24	54.0	27.8	31.7	22.6	9.1	299	226	7.52	7.16	5.10	2.05	3.8	3.8	3.0	5.8
25	68.0	31.5	33.9	20.5	13.4	1367	784	29.48	26.57	16.06	10.50	4.0	4.0	2.9	5.8
25 A	28.0	19.2	20.3	7.0	13.3	173	59	1.77	1.20	0.41	0.79	5.0	5.1	2.7	6.4
25 D	14.0	14.0	14.0	4.7	9.3	50	13	0.37	0.18	0.06	0.12	5.2	5.2	2.6	6.5
25 E	33.0	22.0	22.0	11.5	10.5	33	15	0.42	0.33	0.17	0.16	4.0	4.0	2.3	5.9
26	26.0	18.1	18.1	7.7	10.4	80	41	0.49	0.40	0.17	0.23	4.3	4.3	2.6	5.5
27	55.0	24.3	27.3	15.7	11.7	318	152	4.98	4.15	2.38	1.77	4.3	4.3	2.7	6.4

TABLE: P1: AREA AND VOLUME SUMMARY

BOGNO	MAXIMUM DEPTH (DM)	AVERAGE DEPTH (DM)				AREA (HA)		VOLUME (MCM)				AVG. DEGREE OF HUM.			
		TOTAL AREA	1 METER DEEP AREA O-ALL	SURF.	HUMI.	TOTAL	>=1M DEPTH	TOTAL AREA	1 METER DEEP AREA O-ALL	SURF.	HUMI.	TOTAL AREA	1 METER DEEP AREA O-ALL	SURF.	HUMI.
28	60.0	29.9	31.1	20.3	10.9	241	151	5.15	4.70	3.06	1.64	3.8	3.8	2.8	5.8
29	60.0	29.2	30.2	17.4	12.8	307	206	6.73	6.22	3.58	2.64	4.2	4.2	2.9	6.0
30	44.0	19.4	23.3	13.5	9.9	515	137	5.09	3.20	1.85	1.35	4.3	4.3	2.6	6.7
31	40.0	21.5	23.4	14.0	9.4	393	150	4.72	3.51	2.10	1.41	4.2	4.2	2.8	6.4
32	51.0	18.2	21.0	11.2	9.8	910	249	8.55	5.24	2.80	2.44	4.5	4.6	2.9	6.6
32 A	28.0	22.7	22.7	13.3	9.3	29	16	0.43	0.36	0.21	0.15	4.8	4.8	3.0	7.3
33	40.0	24.5	27.0	14.0	13.0	219	110	3.51	2.97	1.54	1.43	4.5	4.5	2.8	6.4
34	34.0	16.4	20.2	13.8	6.4	80	34	0.92	0.69	0.47	0.22	4.1	4.2	3.0	6.9
36	33.0	17.3	20.7	9.5	11.2	120	76	1.79	1.57	0.72	0.85	4.8	4.8	3.1	6.2
36 A	25.0	22.0	22.0	11.0	11.0	28	14	0.38	0.31	0.15	0.15	5.0	5.0	2.7	7.2
37	73.0	22.5	27.0	16.0	10.9	195	113	3.46	3.05	1.81	1.24	4.3	4.3	3.0	6.1
38	40.0	16.3	19.1	11.7	7.4	371	156	4.06	2.98	1.83	1.15	4.1	4.1	2.8	6.2
39	68.0	34.0	38.5	29.7	8.7	272	163	6.81	6.27	4.85	1.42	3.5	3.5	3.0	5.5
40	62.0	29.0	32.0	22.3	9.8	435	259	9.17	8.29	5.76	2.53	3.8	3.8	2.8	6.1
41	70.0	30.5	32.2	22.1	10.1	344	216	7.58	6.94	4.76	2.18	4.0	4.0	2.9	6.3
42	40.0	24.2	25.7	15.2	10.5	112	72	2.05	1.85	1.09	0.76	4.2	4.2	2.7	6.3
43	25.0	17.5	19.6	6.2	13.4	8	5	0.11	0.10	0.03	0.07	5.2	5.2	2.8	6.3
44	70.0	34.6	37.8	28.0	9.8	545	308	12.83	11.64	8.63	3.01	4.0	4.0	3.3	6.0
44 A	53.0	23.6	27.8	9.6	18.1	55	25	0.84	0.69	0.24	0.45	4.8	4.7	2.9	5.7
45	57.0	26.8	30.1	20.7	9.4	310	159	5.54	4.78	3.29	1.49	3.9	3.9	2.9	6.1

TABLE: P1: AREA AND VOLUME SUMMARY

BOGNO	MAXIMUM DEPTH (DM)	AVERAGE DEPTH (DM)				AREA (HA)		VOLUME (MCM)				AVG. DEGREE OF HUM.			
		TOTAL AREA	1 METER DEEP AREA			TOTAL	>=1M DEPTH	TOTAL AREA	1 METER DEEP AREA			TOTAL AREA	1 METER DEEP AREA		
			O-ALL	SURF.	HUMI.				O-ALL	SURF.	HUMI.		O-ALL	SURF.	HUMI.
46	80.0	36.6	37.7	26.6	11.1	441	333	13.09	12.55	8.84	3.71	3.9	3.9	3.3	5.5
47	40.0	21.3	22.8	16.9	5.9	305	185	4.83	4.23	3.13	1.09	3.8	3.8	3.0	6.1
47 A	39.0	22.7	22.7	18.4	4.3	46	33	0.81	0.75	0.61	0.14	3.6	3.6	2.8	6.7
48	42.0	24.1	24.6	16.6	7.8	118	85	2.26	2.09	1.43	0.66	3.9	3.9	2.8	6.3
49	38.0	20.9	20.9	10.1	10.7	79	35	0.95	0.73	0.35	0.37	4.5	4.5	2.8	6.2
50	50.0	30.6	34.2	23.3	10.8	78	43	1.64	1.47	1.00	0.47	4.5	4.5	3.6	6.4
52	55.0	24.4	28.8	18.6	10.1	473	241	8.09	6.93	4.49	2.44	4.0	4.0	3.1	5.7
52 A	23.0	15.6	17.3	7.0	10.3	60	33	0.70	0.57	0.23	0.34	5.4	5.7	3.3	7.3
52 B	10.0	9.0	10.0	5.0	5.0	45	3	0.24	0.03	0.01	0.01	4.1	4.7	3.2	6.2
52 C	60.0	39.0	39.0	21.7	17.3	13	10	0.40	0.39	0.22	0.17	4.3	4.3	3.3	5.6
53	32.0	23.9	23.9	19.1	4.7	122	62	1.78	1.48	1.19	0.29	3.7	3.7	2.8	7.6
54	61.0	33.5	35.3	22.1	13.2	266	178	6.72	6.28	3.93	2.35	3.9	3.9	2.9	5.6
55	57.0	28.8	34.0	25.5	8.5	159	88	3.35	2.99	2.24	0.75	3.8	3.8	2.9	6.4
55 A	10.0	8.0	10.0	1.0	9.0	28	2	0.15	0.02	0.00	0.02	6.0	6.5	2.0	7.0
56	55.0	29.0	33.0	25.2	7.8	366	241	8.59	7.96	6.08	1.88	3.7	3.7	2.8	6.5
57	73.0	29.3	32.1	14.2	17.9	169	136	4.53	4.37	1.93	2.44	4.7	4.7	3.0	6.1
58	80.0	26.7	27.5	11.4	16.1	203	149	4.36	4.09	1.70	2.39	4.4	4.4	3.3	5.2
58 A	33.0	23.7	23.7	10.3	13.3	28	14	0.40	0.33	0.14	0.19	4.8	4.8	3.1	6.0
60	76.0	43.1	44.3	19.6	24.8	339	183	8.89	8.11	3.58	4.53	3.9	3.9	3.0	4.6
61	59.0	27.6	30.1	19.9	10.2	347	227	7.44	6.84	4.52	2.31	3.9	3.9	2.5	5.6

TABLE: P1: AREA AND VOLUME SUMMARY

		AVERAGE DEPTH (DM)				AREA (HA)		VOLUME (MCM)				AVG. DEGREE OF HUM.			
			1 METER DEEP AREA						1 METER DEEP AREA				1 METER DEEP AREA		
BOGNO	MAXIMUM DEPTH (DM)	TOTAL AREA	O-ALL	SURF.	HUMI.	TOTAL	>=1M DEPTH	TOTAL AREA	O-ALL	SURF.	HUMI.	TOTAL AREA	O-ALL	SURF.	HUMI.
62	21.0	13.3	16.7	9.7	7.0	50	11	0.38	0.18	0.11	0.08	5.0	5.2	3.7	7.1
63	25.0	25.0	25.0	10.4	14.6	49	31	0.86	0.77	0.32	0.45	5.1	5.1	2.3	7.1
64	27.0	18.7	21.6	2.6	19.0	62	24	0.71	0.52	0.06	0.46	5.7	5.8	3.0	6.2
66	60.0	43.1	43.1	10.6	32.5	74	57	2.54	2.46	0.60	1.85	4.3	4.3	3.9	4.4
70	48.0	37.4	37.4	19.8	17.6	89	65	2.55	2.43	1.29	1.14	5.1	5.1	3.7	6.8
71	21.0	16.9	16.8	6.7	10.2	72	25	0.66	0.42	0.17	0.25	6.1	6.1	4.3	7.3
72	33.0	31.5	31.5	24.8	6.8	32	20	0.69	0.63	0.49	0.13	3.3	3.3	2.1	7.6
73	44.0	30.3	30.3	20.3	10.0	75	31	1.16	0.94	0.63	0.31	4.4	4.4	3.1	7.1
75	50.0	31.8	31.8	24.3	7.5	44	24	0.86	0.76	0.58	0.18	3.3	3.3	2.7	5.4
76	74.0	34.4	38.6	24.1	14.5	405	289	11.74	11.16	6.97	4.19	4.0	4.0	3.0	5.7
77	20.0	14.4	16.0	6.0	10.0	57	17	0.47	0.27	0.10	0.17	5.1	5.0	3.0	6.3
77 A	3.0	3.0	0.0	0.0	0.0	119	0	0.59	0.00	0.00	0.00	3.7	0.0	0.0	0.0
78	22.0	17.0	17.0	15.5	1.5	18	7	0.17	0.12	0.11	0.01	3.5	3.5	3.1	7.7
79	25.0	14.7	14.7	0.7	14.0	59	18	0.47	0.26	0.01	0.25	5.3	5.3	4.0	5.3
95	46.0	28.0	28.0	8.5	19.5	74	44	1.38	1.23	0.37	0.86	4.9	4.9	2.2	6.1
96	60.0	39.8	39.8	1.4	38.4	45	30	1.27	1.19	0.04	1.15	6.0	6.0	3.0	6.1
98	57.0	43.8	43.8	38.6	5.2	96	73	3.31	3.20	2.82	0.38	3.3	3.3	3.0	5.2
103	54.0	35.5	35.5	10.2	25.3	33	21	0.81	0.75	0.21	0.53	4.6	4.6	3.2	5.2
104	43.0	18.9	18.9	12.3	6.6	28	15	0.35	0.28	0.18	0.10	4.1	4.1	2.7	6.9
105	50.0	20.3	20.3	9.3	11.0	15	10	0.23	0.20	0.09	0.11	5.0	5.0	3.4	5.4

TABLE: P1: AREA AND VOLUME SUMMARY

BOGNO	MAXIMUM DEPTH (DM)	AVERAGE DEPTH (DM)				AREA (HA)		VOLUME (MCM)				AVG. DEGREE OF HUM.			
			1 METER DEEP AREA						1 METER DEEP AREA				1 METER DEEP AREA		
		TOTAL AREA	O-ALL	SURF.	HUMI.	TOTAL	>=1M DEPTH	TOTAL AREA	O-ALL	SURF.	HUMI.	TOTAL AREA	O-ALL	SURF.	HUMI.
106	29.0	26.0	26.0	19.5	6.5	31	19	0.55	0.49	0.37	0.12	3.4	3.4	2.7	5.4
107	30.0	19.5	19.5	10.8	8.8	62	33	0.79	0.64	0.35	0.29	4.6	4.6	2.8	6.7
107 A	15.0	11.3	12.0	6.7	5.3	15	5	0.11	0.06	0.03	0.03	4.5	4.4	2.3	7.0
108	30.0	17.4	17.4	11.6	5.8	86	55	1.11	0.96	0.64	0.32	4.2	4.2	3.0	6.7
110	25.0	19.2	19.2	14.0	5.2	23	15	0.33	0.29	0.21	0.08	3.8	3.8	2.8	6.6
111	12.0	10.5	10.5	7.0	3.5	106	4	0.55	0.04	0.03	0.01	4.3	4.3	2.6	7.6
112	6.0	4.5	0.0	0.0	0.0	25	0	0.13	0.00	0.00	0.00	3.3	0.0	0.0	0.0
113	15.0	13.4	13.4	8.0	5.4	38	18	0.34	0.24	0.14	0.10	4.5	4.5	2.7	7.1
114	13.0	10.7	11.5	4.0	7.5	25	7	0.17	0.08	0.03	0.05	5.1	5.4	2.5	6.9
115	99.9	47.6	53.8	33.7	20.1	267	193	10.76	10.39	6.50	3.89	4.0	4.0	3.0	5.5
116	64.0	33.3	33.3	20.8	12.5	106	65	2.37	2.16	1.35	0.81	4.0	4.0	3.0	5.6
117	35.0	17.3	13.7	4.3	9.4	47	12	0.34	0.16	0.05	0.11	5.7	5.5	3.1	6.6
118	18.0	13.0	16.2	6.8	9.4	124	34	1.00	0.55	0.23	0.32	4.9	5.3	2.5	7.3
118 A	40.0	23.3	23.3	17.0	6.3	32	18	0.49	0.42	0.31	0.11	3.8	3.8	2.9	6.2
119	22.0	16.4	18.8	8.5	10.3	33	16	0.38	0.30	0.14	0.16	4.7	4.9	2.6	6.9
120	30.0	23.8	23.8	11.8	12.0	90	35	1.11	0.83	0.41	0.42	4.2	4.2	3.2	5.1
121	23.0	14.3	17.3	10.0	7.3	42	17	0.42	0.29	0.17	0.12	3.9	3.7	2.8	5.0
121 A	54.0	30.5	30.5	14.8	15.8	68	48	1.56	1.46	0.71	0.76	4.6	4.6	3.0	6.1
122	34.0	22.4	22.4	10.9	11.6	113	38	1.23	0.85	0.41	0.44	4.5	4.5	2.7	6.2
123	6.0	5.5	0.0	0.0	0.0	53	0	0.26	0.00	0.00	0.00	3.4	0.0	0.0	0.0

TABLE: P1: AREA AND VOLUME SUMMARY

		AVERAGE DEPTH (DM)				AREA (HA)		VOLUME (MCM)				AVG. DEGREE OF HUM.			
			1 METER DEEP AREA						1 METER DEEP AREA				1 METER DEEP AREA		
BOGNO	MAXIMUM DEPTH (DM)	TOTAL AREA	O-ALL	SURF.	HUMI.	TOTAL	>=1M DEPTH	TOTAL AREA	O-ALL	SURF.	HUMI.	TOTAL AREA	O-ALL	SURF.	HUMI.
124	19.0	10.7	17.5	8.0	9.5	81	6	0.48	0.10	0.05	0.06	4.3	3.9	2.6	4.9
125	18.0	10.7	13.3	6.5	6.8	165	12	0.92	0.16	0.08	0.08	4.4	4.4	3.0	5.9
126	29.0	16.4	23.0	13.8	9.3	76	22	0.78	0.51	0.30	0.20	3.8	4.0	2.7	5.9
126 A	27.0	15.3	17.7	9.0	8.7	42	14	0.39	0.25	0.13	0.12	4.5	4.4	3.1	5.7
130	28.0	13.3	16.3	9.3	7.0	156	26	1.07	0.42	0.24	0.18	4.5	4.6	2.6	7.3
133	46.0	28.3	34.8	13.8	21.0	86	36	1.50	1.25	0.50	0.76	5.2	5.2	2.5	7.0
134	29.0	15.6	18.4	7.8	10.6	131	46	1.27	0.85	0.36	0.49	4.7	4.8	2.5	6.5
134 A	19.0	12.3	14.5	7.5	7.0	37	6	0.24	0.09	0.04	0.04	4.2	4.1	2.6	5.7
135	25.0	16.0	19.5	7.5	12.0	46	9	0.36	0.18	0.07	0.11	4.5	4.5	2.5	5.8
137	18.0	13.0	14.3	14.0	0.3	42	9	0.29	0.13	0.13	0.00	2.8	2.8	2.8	6.0
138	40.0	21.2	26.3	21.3	4.0	122	49	1.60	1.24	1.04	0.20	3.6	3.7	3.0	7.2
139	18.0	13.5	14.7	5.6	9.1	79	21	0.60	0.31	0.12	0.19	4.8	4.8	2.6	6.2
139 A	18.0	15.0	18.0	8.0	10.0	24	6	0.20	0.11	0.05	0.06	3.9	4.2	2.3	5.7
140	41.0	23.4	27.5	16.0	11.5	52	23	0.78	0.63	0.37	0.26	4.1	4.2	2.6	6.3
141	14.0	9.3	13.0	5.5	7.5	46	5	0.27	0.06	0.03	0.04	4.6	5.0	3.3	6.3
144	30.0	24.2	24.2	11.0	13.2	47	29	0.79	0.70	0.32	0.38	4.8	4.8	2.7	6.5
145	55.0	23.3	25.1	10.4	14.8	122	50	1.62	1.26	0.52	0.74	4.8	4.9	3.0	6.2
146	25.0	14.3	15.4	8.9	6.6	124	38	1.02	0.59	0.34	0.25	4.2	4.3	2.5	6.7
146 B	4.0	3.5	0.0	0.0	0.0	18	0	0.09	0.00	0.00	0.00	1.0	0.0	0.0	0.0
146 C	21.0	16.8	16.8	13.2	3.6	50	14	0.42	0.24	0.18	0.05	4.0	4.0	3.2	6.9

TABLE: P1: AREA AND VOLUME SUMMARY

		AVERAGE DEPTH (DM)				AREA (HA)		VOLUME (MCM)				AVG. DEGREE OF HUM.			
			1 METER DEEP AREA						1 METER DEEP AREA				1 METER DEEP AREA		
BOGNO	MAXIMUM DEPTH (DM)	TOTAL AREA	O-ALL	SURF.	HUMI.	TOTAL	>=1M DEPTH	TOTAL AREA	O-ALL	SURF.	HUMI.	TOTAL AREA	O-ALL	SURF.	HUMI.
147	41.0	27.5	27.5	27.5	0.0	25	7	0.28	0.19	0.19	0.00	3.6	3.6	3.6	0.0
148	52.0	38.0	38.0	25.0	13.0	20	4	0.23	0.15	0.10	0.05	4.2	4.2	3.8	4.9
149	21.0	14.5	16.7	11.7	5.0	35	9	0.28	0.15	0.10	0.04	3.7	3.9	3.1	5.9
150	20.0	13.0	13.0	10.0	3.0	36	13	0.28	0.17	0.13	0.04	4.2	4.2	3.4	6.8
150 A	28.0	21.0	21.0	16.5	4.5	37	20	0.50	0.42	0.33	0.09	4.1	4.1	3.3	7.1
151	35.0	19.3	19.3	12.5	6.8	38	15	0.40	0.29	0.19	0.10	4.4	4.4	3.0	7.0
152	37.0	17.8	17.8	5.2	12.6	47	23	0.53	0.41	0.12	0.29	4.8	4.8	2.5	5.7
153	80.0	30.5	31.9	19.6	12.3	213	114	4.13	3.63	2.24	1.40	4.5	4.5	3.4	6.2
154	39.0	18.1	18.1	9.4	8.7	130	67	1.53	1.21	0.63	0.58	4.8	4.8	2.8	7.0
154 A	30.0	14.8	18.8	9.5	9.3	63	26	0.67	0.49	0.25	0.24	4.1	4.3	2.2	6.4
154 B	32.0	21.0	21.0	11.8	9.2	26	18	0.42	0.38	0.21	0.17	4.1	4.1	2.4	6.2
155	17.0	13.3	13.3	6.7	6.7	18	6	0.14	0.08	0.04	0.04	5.1	5.1	2.9	7.3
156	14.0	10.8	12.7	6.7	6.0	30	8	0.21	0.10	0.05	0.05	4.2	4.4	2.7	6.4
158	43.0	25.9	28.3	17.0	11.3	82	46	1.48	1.30	0.78	0.52	4.1	4.1	2.7	6.3
159	46.0	27.6	27.6	18.6	9.0	60	47	1.36	1.30	0.87	0.42	3.8	3.8	2.5	6.5
159 A	44.0	21.1	27.4	17.9	9.6	40	18	0.60	0.49	0.32	0.17	4.3	4.1	3.0	6.1
160	45.0	19.3	20.0	13.1	6.9	94	72	1.55	1.44	0.94	0.50	3.9	3.9	2.7	6.3
161	33.0	15.7	20.0	14.3	5.8	30	14	0.36	0.28	0.20	0.08	4.3	4.2	3.5	6.0
162	40.0	22.6	27.2	17.0	10.2	63	33	1.05	0.90	0.56	0.34	3.9	3.9	2.7	5.8
162 A	9.0	4.5	0.0	0.0	0.0	50	0	0.25	0.00	0.00	0.00	5.6	0.0	0.0	0.0

TABLE: P1: AREA AND VOLUME SUMMARY

BOGNO	MAXIMUM DEPTH (DM)	AVERAGE DEPTH (DM) TOTAL AREA	AVERAGE DEPTH (DM) 1 METER DEEP AREA O-ALL	AVERAGE DEPTH (DM) 1 METER DEEP AREA SURF.	AVERAGE DEPTH (DM) 1 METER DEEP AREA HUMI.	AREA (HA) TOTAL	AREA (HA) >=1M DEPTH	VOLUME (MCM) TOTAL AREA	VOLUME (MCM) 1 METER DEEP AREA O-ALL	VOLUME (MCM) 1 METER DEEP AREA SURF.	VOLUME (MCM) 1 METER DEEP AREA HUMI.	AVG. DEGREE OF HUM. TOTAL AREA	AVG. DEGREE OF HUM. 1 METER DEEP AREA O-ALL	AVG. DEGREE OF HUM. 1 METER DEEP AREA SURF.	AVG. DEGREE OF HUM. 1 METER DEEP AREA HUMI.
163	33.0	15.4	17.0	14.3	2.8	16	7	0.16	0.12	0.10	0.02	3.7	3.7	3.4	5.3
164	35.0	21.7	21.7	16.4	5.3	51	30	0.76	0.65	0.49	0.16	4.0	4.0	3.0	6.8
165	45.0	26.0	28.6	20.3	8.3	46	34	1.03	0.97	0.69	0.28	3.5	3.5	2.9	5.1
166	52.0	25.0	25.0	12.0	13.0	89	59	1.62	1.47	0.71	0.77	4.7	4.7	2.9	6.2
167	41.0	21.3	21.3	16.3	4.9	95	50	1.29	1.06	0.82	0.25	3.5	3.5	2.9	5.4
168	54.0	30.4	33.1	25.1	8.0	54	41	1.42	1.36	1.03	0.33	3.8	3.8	3.0	6.4
169	30.0	19.6	22.3	12.3	10.0	24	13	0.34	0.29	0.16	0.13	4.0	3.9	2.9	5.2
170	44.0	16.6	18.8	10.8	8.0	78	36	0.89	0.68	0.39	0.29	4.2	4.1	3.0	5.5
170 A	30.0	11.8	16.4	7.6	8.8	49	18	0.45	0.30	0.14	0.16	5.1	5.1	3.1	6.8
171	65.0	33.5	35.5	20.0	15.5	72	61	2.22	2.17	1.22	0.95	4.3	4.3	3.0	5.9
171 A	51.0	25.3	28.7	21.0	7.7	32	23	0.70	0.66	0.48	0.18	3.9	3.9	3.2	5.7
173	19.0	10.8	14.3	6.8	7.5	45	10	0.32	0.14	0.07	0.07	4.1	4.2	2.4	5.7
173 A	10.0	5.4	0.0	0.0	0.0	27	0	0.13	0.00	0.00	0.00	5.7	0.0	0.0	0.0
174	52.0	25.0	31.3	19.7	11.7	29	16	0.00	0.00	0.00	0.00	3.9	3.9	2.8	5.9
176	30.0	19.0	19.9	15.7	4.2	107	60	1.43	1.19	0.94	0.25	3.1	3.2	2.5	5.6
177	30.0	16.0	16.0	15.0	1.0	63	27	0.61	0.43	0.40	0.03	3.3	3.3	3.1	7.2
178	15.0	8.4	11.3	5.7	5.7	70	6	0.39	0.07	0.03	0.03	5.0	[illegible]	2.5	7.2
179	50.0	25.5	25.5	18.9	6.6	69	34	1.04	0.87	0.64	0.23	3.6	3.6	2.8	6.1
180	60.0	32.8	41.3	29.7	11.7	87	54	2.40	2.23	1.60	0.63	3.9	4.0	3.0	6.5
181	31.0	18.2	18.2	11.2	7.0	27	12	0.29	0.22	0.13	0.08	4.0	4.0	2.3	6.6

TABLE: P1: AREA AND VOLUME SUMMARY

BOGNO	MAXIMUM DEPTH (DM)	AVERAGE DEPTH (DM)				AREA (HA)		VOLUME (MCM)				AVG. DEGREE OF HUM.			
			1 METER DEEP AREA						1 METER DEEP AREA				1 METER DEEP AREA		
		TOTAL AREA	0-ALL	SURF.	HUMI.	TOTAL	>=1M DEPTH	TOTAL AREA	0-ALL	SURF.	HUMI.	TOTAL AREA	0-ALL	SURF.	HUMI.
181 A	45.0	21.5	21.5	11.1	10.4	84	32	0.95	0.69	0.36	0.33	3.9	3.9	2.5	5.4
182	23.0	12.5	14.8	5.7	9.2	51	13	0.38	0.19	0.07	0.12	4.3	4.4	2.3	5.7
183	29.0	21.3	21.3	8.5	12.8	21	8	0.23	0.17	0.07	0.10	4.8	4.8	2.8	6.2
190	21.0	11.8	13.4	9.0	4.4	29	19	0.31	0.26	0.17	0.08	4.5	4.5	3.1	7.3
190 A	8.0	3.7	0.0	0.0	0.0	8	0	0.04	0.00	0.00	0.00	5.7	0.0	0.0	0.0
191	39.0	20.9	20.9	9.3	11.6	55	22	0.62	0.46	0.20	0.26	4.4	4.4	2.9	5.8
192	17.0	10.9	12.2	4.6	7.6	40	14	0.30	0.17	0.06	0.11	5.1	5.1	3.5	6.1
193	21.0	13.6	15.0	6.6	8.4	65	18	0.50	0.27	0.12	0.15	4.5	4.6	2.2	6.6
194	16.0	8.8	13.3	6.7	6.7	78	13	0.50	0.17	0.09	0.09	4.6	4.5	3.0	6.0
195	34.0	20.3	22.5	8.7	13.8	87	33	1.01	0.74	0.29	0.46	4.5	4.5	2.8	5.6
196	58.0	34.2	39.4	26.3	13.1	90	55	2.34	2.17	1.45	0.72	3.7	3.8	2.8	5.8
197	23.0	12.0	14.3	7.0	7.3	22	8	0.18	0.11	0.06	0.06	4.9	4.7	2.7	6.6
198	3.0	3.0	0.0	0.0	0.0	54	0	0.27	0.00	0.00	0.00	5.0	0.0	0.0	0.0
198 A	5.0	4.5	0.0	0.0	0.0	60	0	0.30	0.00	0.00	0.00	4.8	0.0	0.0	0.0
199	20.0	11.8	17.0	6.7	10.3	110	20	0.79	0.34	0.13	0.21	4.6	4.9	2.3	6.5
200	21.0	12.1	15.0	9.1	5.9	226	35	1.48	0.52	0.32	0.20	4.3	4.5	3.0	6.8
200 A	38.0	24.3	32.0	23.0	9.0	58	16	0.72	0.51	0.37	0.14	4.4	4.4	3.2	7.5
202	39.0	15.6	19.8	10.4	9.4	59	14	0.50	0.28	0.15	0.13	4.2	4.2	2.8	5.7
203	40.0	21.0	21.0	8.5	12.5	154	87	2.16	1.83	0.74	1.08	5.1	5.1	2.8	6.6
203 A	15.0	15.0	15.0	6.0	9.0	38	16	0.35	0.24	0.10	0.14	5.1	5.1	2.3	7.0

TABLE: P1: AREA AND VOLUME SUMMARY

BOGNO	MAXIMUM DEPTH (DM)	AVERAGE DEPTH (DM)				AREA (HA)		VOLUME (MCM)				AVG. DEGREE OF HUM.			
		TOTAL AREA	1 METER DEEP AREA O-ALL	SURF.	HUMI.	TOTAL	>=1M DEPTH	TOTAL AREA	1 METER DEEP AREA O-ALL	SURF.	HUMI.	TOTAL AREA	1 METER DEEP AREA O-ALL	SURF.	HUMI.
203 B	20.0	17.0	17.0	5.8	11.3	50	10	0.47	0.31	0.10	0.20	5.6	5.6	2.8	7.0
204	7.0	3.5	0.0	0.0	0.0	33	0	0.18	0.00	0.00	0.00	5.9	0.0	0.0	0.0
204 A	20.0	10.6	13.3	12.3	1.0	20	3	0.12	0.04	0.04	0.00	3.1	3.1	2.8	7.3
205	46.0	17.6	19.1	7.4	11.7	75	31	0.81	0.59	0.23	0.36	4.8	4.8	3.2	5.8
205 A	10.0	6.3	0.0	0.0	0.0	16	0	0.08	0.00	0.00	0.00	3.2	0.0	0.0	0.0
206	14.0	7.3	10.0	3.0	7.0	33	2	0.17	0.02	0.01	0.01	5.3	6.0	3.0	7.3
207	9.0	7.0	0.0	0.0	0.0	22	0	0.11	0.00	0.00	0.00	5.2	0.0	0.0	0.0
208	11.0	9.3	11.0	6.0	5.0	24	3	0.14	0.03	0.02	0.01	4.6	5.0	2.3	8.2
209	32.0	19.1	20.3	16.0	5.3	101	76	1.67	1.54	1.14	0.40	3.6	3.5	3.0	5.2
209 A	14.0	9.3	9.3	2.0	7.3	12	5	0.09	0.06	0.01	0.04	6.1	6.1	3.3	6.9
211	61.0	34.0	37.3	35.2	2.1	311	191	7.72	7.12	6.72	0.40	3.0	3.0	2.7	6.4
212	54.0	30.6	33.4	28.8	4.6	308	189	6.92	6.32	5.45	0.87	3.4	3.4	2.9	6.9
213	77.0	28.1	31.9	28.2	3.7	2265	1347	47.62	43.03	38.03	5.00	3.5	3.4	3.0	6.4
213 A	19.0	14.3	16.7	14.3	2.3	68	21	0.58	0.35	0.30	0.05	3.3	3.2	2.4	7.9
214	11.0	6.7	10.0	3.0	7.0	11	0	0.06	0.00	0.00	0.00	5.8	6.2	4.0	7.1
214 A	35.0	19.4	29.0	22.0	7.0	31	12	0.44	0.35	0.26	0.08	4.4	4.4	3.8	6.3
215	41.0	26.5	28.4	25.5	2.9	230	115	3.04	3.27	2.93	0.34	3.2	3.2	2.6	7.1
217	9.0	6.0	0.0	0.0	0.0	79	0	0.39	0.00	0.00	0.00	6.3	0.0	0.0	0.0
217 A	11.0	7.4	10.5	8.0	2.5	84	4	0.44	0.04	0.03	0.01	3.8	4.0	3.1	6.6
218	24.0	13.3	15.2	6.8	8.4	75	10	0.56	0.27	0.12	0.15	4.2	4.5	2.8	5.8

TABLE: P1: AREA AND VOLUME SUMMARY

BOGNO	MAXIMUM DEPTH (DM)	AVERAGE DEPTH (DM)				AREA (HA)		VOLUME (MCM)				AVG. DEGREE OF HUM.			
			1 METER DEEP AREA						1 METER DEEP AREA				1 METER DEEP AREA		
		TOTAL AREA	O-ALL	SURF.	HUMI.	TOTAL	>=1M DEPTH	TOTAL AREA	O-ALL	SURF.	HUMI.	TOTAL AREA	O-ALL	SURF.	HUMI.
219	11.0	7.7	11.0	3.0	8.0	41	3	0.22	0.03	0.01	0.02	5.6	6.3	2.0	7.9
219 A	24.0	14.7	17.5	9.0	8.5	61	10	0.43	0.17	0.09	0.08	5.0	5.2	3.9	6.5
219 B	76.0	40.8	40.8	28.2	12.6	71	49	2.07	1.98	1.38	0.60	4.7	4.7	3.3	7.7
220	19.0	16.3	16.3	10.7	5.7	24	10	0.23	0.16	0.11	0.06	3.7	3.7	2.3	6.4
220 A	35.0	17.0	23.5	19.0	4.5	55	12	0.50	0.28	0.23	0.05	3.8	3.9	3.5	5.3
221	33.0	21.3	21.3	10.5	10.8	128	43	1.34	0.92	0.45	0.47	4.4	4.4	2.7	6.1
224	48.0	25.6	30.9	18.6	12.2	130	76	2.62	2.35	1.42	0.93	4.1	4.2	2.9	6.1
225	43.0	33.8	33.8	17.6	16.3	30	21	0.75	0.71	0.37	0.34	4.2	4.2	2.7	5.8
226	30.0	17.3	17.3	10.7	6.7	45	18	0.46	0.31	0.19	0.12	4.1	4.1	2.6	6.6
227	27.0	20.0	20.0	9.0	11.0	17	6	0.17	0.12	0.05	0.07	4.7	4.7	2.6	6.4
228	27.0	20.0	20.0	6.8	13.2	71	40	0.95	0.80	0.27	0.53	5.5	5.5	2.6	7.0
228 A	28.0	21.0	21.0	10.5	10.5	42	23	0.58	0.48	0.24	0.24	4.7	4.7	2.6	6.8
229	24.0	19.0	19.0	11.8	7.3	35	17	0.41	0.32	0.20	0.12	4.1	4.1	2.6	6.6
230	40.0	29.0	29.0	12.6	16.4	41	28	0.88	0.81	0.35	0.46	4.3	4.3	3.5	4.9
242	55.0	22.0	25.3	11.9	13.4	301	166	4.87	4.19	1.97	2.22	4.7	4.7	2.9	6.2
242 A	23.0	15.5	15.5	5.0	10.5	27	10	0.24	0.15	0.05	0.10	5.1	5.1	2.4	6.4
242 B	15.0	10.7	12.5	6.8	5.8	49	14	0.35	0.17	0.09	0.08	4.1	4.2	3.3	5.3
242 C	13.0	11.0	12.0	6.5	5.5	34	9	0.23	0.11	0.06	0.05	4.5	4.5	3.1	6.2
243	20.0	18.0	18.0	9.7	8.3	28	9	0.26	0.16	0.09	0.07	3.8	3.8	2.2	5.6
244	30.0	14.3	16.3	5.7	10.7	29	7	0.22	0.11	0.04	0.07	4.9	5.0	2.8	6.2

TABLE: P1: AREA AND VOLUME SUMMARY

BOGNO	MAXIMUM DEPTH (DM)	AVERAGE DEPTH (DM)				AREA (HA)		VOLUME (MCM)				AVG. DEGREE OF HUM.			
		TOTAL AREA	1 METER DEEP AREA 0-ALL	SURF.	HUMI.	TOTAL	>=1M DEPTH	TOTAL AREA	1 METER DEEP AREA 0-ALL	SURF.	HUMI.	TOTAL AREA	1 METER DEEP AREA 0-ALL	SURF.	HUMI.
245	52.0	22.7	25.0	12.1	12.9	196	118	3.34	2.95	1.43	1.52	4.4	4.5	2.9	5.9
248	43.0	29.6	29.6	20.8	8.8	84	50	1.65	1.48	1.04	0.44	3.8	3.8	2.9	5.9
249	17.0	12.8	13.8	6.5	7.3	31	10	0.24	0.14	0.06	0.07	4.4	4.7	2.4	6.8
250	15.0	11.5	15.0	6.0	9.0	13	2	0.08	0.03	0.01	0.02	5.9	5.9	2.8	8.0
251	14.0	9.8	12.8	5.5	7.3	56	6	0.33	0.08	0.03	0.04	5.0	5.4	2.7	7.5
252	40.0	24.0	24.0	13.0	11.0	78	38	1.11	0.91	0.49	0.42	4.3	4.3	2.3	6.5
253	25.0	18.8	18.8	13.0	5.8	37	18	0.43	0.34	0.23	0.10	3.9	3.9	3.2	5.6
256	41.0	23.2	27.3	16.4	10.9	91	73	2.09	2.00	1.20	0.80	4.3	4.4	3.1	6.2
256 A	11.0	6.0	11.0	7.0	4.0	76	6	0.42	0.07	0.04	0.02	4.3	4.7	2.9	8.0
256 B	9.0	6.0	0.0	0.0	0.0	46	0	0.23	0.00	0.00	0.00	4.7	0.0	0.0	0.0
256 C	7.0	6.0	0.0	0.0	0.0	26	0	0.13	0.00	0.00	0.00	5.1	0.0	0.0	0.0
257	37.0	23.9	23.9	13.6	10.3	56	44	1.11	1.05	0.60	0.45	4.4	4.4	3.2	6.1
258	44.0	17.8	22.3	14.6	7.7	142	48	1.54	1.07	0.70	0.37	4.1	4.1	3.1	6.1
261	23.0	17.3	17.3	4.8	12.5	50	15	0.43	0.26	0.07	0.19	6.1	6.1	2.9	7.3
261 A	24.0	13.0	15.3	5.5	9.8	52	20	0.46	0.30	0.11	0.19	5.1	5.3	2.1	7.1
261 B	13.0	9.8	11.5	4.5	7.0	45	4	0.25	0.05	0.02	0.03	5.5	5.4	2.0	7.6
261 C	35.0	13.6	25.0	12.5	12.5	60	11	0.52	0.27	0.14	0.14	4.8	5.3	3.0	7.5
263	23.0	13.5	17.3	4.0	13.3	52	19	0.49	0.33	0.08	0.25	5.5	5.9	2.9	6.8
264	10.0	8.8	0.0	0.0	0.0	41	0	0.20	0.00	0.00	0.00	3.8	0.0	0.0	0.0
265	6.0	5.0	0.0	0.0	0.0	24	0	0.12	0.00	0.00	0.00	3.3	0.0	0.0	0.0

TABLE: P1: AREA AND VOLUME SUMMARY

BOGNO	MAXIMUM DEPTH (DM)	AVERAGE DEPTH (DM)				AREA (HA)		VOLUME (MCM)				AVG. DEGREE OF HUM.			
		TOTAL AREA	1 METER DEEP AREA O-ALL	SURF.	HUMI.	TOTAL	>=1M DEPTH	TOTAL AREA	1 METER DEEP AREA O-ALL	SURF.	HUMI.	TOTAL AREA	1 METER DEEP AREA O-ALL	SURF.	HUMI.
266	51.0	23.5	26.7	14.3	11.8	123	79	2.33	2.11	1.18	0.93	4.4	4.4	2.7	6.5
267	18.0	10.8	13.0	7.0	6.0	113	23	0.75	0.30	0.16	0.14	3.4	3.3	2.0	4.7
268	14.0	9.8	13.0	6.5	6.5	64	14	0.43	0.18	0.09	0.09	3.9	3.8	2.0	5.7
269	19.0	13.5	13.5	2.3	11.3	57	10	0.37	0.13	0.02	0.11	5.6	5.6	2.4	6.3
270	17.0	15.0	15.0	6.0	9.0	39	8	0.27	0.12	0.05	0.07	4.6	4.6	2.9	5.7
271	46.0	25.7	29.1	14.7	14.4	106	70	2.22	2.04	1.03	1.01	4.6	4.6	2.8	6.4
276	29.0	21.5	21.5	6.3	15.3	43	20	0.54	0.43	0.13	0.30	5.5	5.5	2.4	6.8
277	18.0	13.5	13.5	8.0	5.5	24	11	0.21	0.15	0.09	0.06	4.0	4.0	2.2	6.6
278	60.0	32.0	32.0	21.3	10.8	109	27	1.27	0.86	0.57	0.29	4.2	4.2	3.4	5.8
279	28.0	25.5	25.5	9.5	16.0	30	10	0.35	0.25	0.09	0.16	5.0	5.0	2.7	6.4
282	24.0	17.8	17.8	10.0	7.8	48	20	0.49	0.35	0.20	0.15	4.7	4.7	2.5	7.4
284	28.0	18.8	18.8	4.8	14.0	40	17	1.49	1.31	0.33	0.98	6.2	6.2	2.6	7.4
285	29.0	19.3	23.7	9.0	14.7	75	40	1.12	0.95	0.36	0.59	4.7	4.7	2.3	6.2
286	25.0	17.0	25.0	7.0	18.0	41	9	0.38	0.22	0.06	0.16	5.3	5.7	2.6	6.9
287	43.0	29.0	29.0	13.4	15.6	69	32	1.11	0.93	0.43	0.50	4.4	4.4	2.8	5.8
301	61.0	28.0	30.0	27.1	2.9	684	453	14.74	13.59	12.27	1.32	3.4	3.4	3.1	6.1
301 A	35.0	16.7	20.7	18.8	1.8	400	157	4.46	3.25	2.96	0.29	3.6	3.5	3.3	6.4
302	35.0	27.6	27.6	24.4	3.2	101	65	1.97	1.79	1.59	0.21	3.3	3.3	2.9	6.1
302 A	52.0	25.2	27.3	24.5	2.7	233	145	4.39	3.95	3.56	0.40	3.3	3.3	3.0	5.7
303	26.0	10.8	15.3	12.0	3.3	143	54	2.22	0.83	0.65	0.18	4.1	3.9	3.3	6.1

TABLE: P1: AREA AND VOLUME SUMMARY

BOGNO	MAXIMUM DEPTH (DM)	AVERAGE DEPTH (DM) TOTAL AREA	AVERAGE DEPTH (DM) 1 METER DEEP AREA O-ALL	AVERAGE DEPTH (DM) 1 METER DEEP AREA SURF.	AVERAGE DEPTH (DM) 1 METER DEEP AREA HUMI.	AREA (HA) TOTAL	AREA (HA) >=1M DEPTH	VOLUME (MCM) TOTAL AREA	VOLUME (MCM) 1 METER DEEP AREA O-ALL	VOLUME (MCM) 1 METER DEEP AREA SURF.	VOLUME (MCM) 1 METER DEEP AREA HUMI.	AVG. DEGREE OF HUM. TOTAL AREA	AVG. DEGREE OF HUM. 1 METER DEEP AREA O-ALL	AVG. DEGREE OF HUM. 1 METER DEEP AREA SURF.	AVG. DEGREE OF HUM. 1 METER DEEP AREA HUMI.
303 A	41.0	15.9	19.0	16.2	2.7	408	155	4.21	2.94	2.52	0.42	3.4	3.3	3.0	5.3
304	42.0	35.3	35.3	27.7	7.7	111	46	1.95	1.63	1.27	0.35	3.8	3.8	3.4	5.5
304 A	55.0	30.6	32.7	20.1	4.5	790	563	19.52	18.39	15.83	2.56	3.5	3.5	3.1	6.0
305	76.0	43.1	46.2	31.4	14.8	571	412	19.82	19.03	12.94	6.09	4.2	4.2	3.4	5.7
306	55.0	30.1	33.2	29.3	3.9	609	360	13.20	11.96	10.56	1.40	3.3	3.3	3.0	5.8
308	28.0	19.5	24.3	22.7	1.7	228	55	2.20	1.34	1.25	0.09	3.4	3.3	3.0	6.6
311	39.0	19.6	24.1	19.4	4.7	79	38	1.12	0.92	0.74	0.18	3.5	3.5	2.9	6.2
311 A	29.0	14.3	20.5	15.0	5.5	279	22	1.74	0.45	0.33	0.12	3.8	3.9	2.9	6.5
312	30.0	19.1	20.5	19.6	0.9	186	82	2.18	1.68	1.61	0.07	2.9	2.9	2.6	7.4
313	43.0	21.7	24.8	22.1	2.7	368	205	5.[illegible]	5.08	4.53	0.54	3.2	3.2	2.9	5.9
318	10.0	7.2	10.0	0.0	10.0	179	4	0.91	0.04	0.00	0.04	6.3	7.0	0.0	7.0
319	9.0	7.3	0.0	0.0	0.0	22	0	0.11	0.00	0.00	0.00	3.0	0.0	0.0	0.0
320	28.0	17.4	21.0	8.7	12.3	91	42	1.13	0.88	0.36	0.52	4.9	4.9	2.8	6.4
323	45.0	28.6	30.4	27.0	2.5	1115	560	19.78	17.01	15.59	1.41	3.4	3.4	3.1	6.3
324 E	80.0	42.7	45.3	37.3	7.9	1977	1543	72.02	69.85	57.59	12.26	3.8	3.8	3.4	6.0
324 N	81.0	38.7	40.0	31.0	9.0	1275	974	40.46	38.95	30.21	8.74	3.9	3.9	3.3	5.8
324 W	80.0	36.0	37.6	30.1	7.6	3039	2391	93.24	90.00	71.87	18.13	3.8	3.8	3.2	6.1
337	63.0	33.1	36.0	32.6	3.4	681	413	16.21	14.87	13.46	1.41	3.5	3.5	3.2	5.9
337 A	42.0	24.8	26.0	23.5	2.5	208	152	4.23	3.95	3.57	0.38	3.3	3.3	3.0	5.9
338	72.0	44.2	44.9	34.3	10.7	850	665	30.81	29.89	22.80	7.09	4.0	4.0	3.3	6.2

TABLE: P1: AREA AND VOLUME SUMMARY

BOGNO	MAXIMUM DEPTH (DM)	AVERAGE DEPTH (DM) TOTAL AREA	1 METER DEEP AREA 0-ALL	SURF.	HUMI.	AREA (HA) TOTAL	>=1M DEPTH	VOLUME (MCM) TOTAL AREA	1 METER DEEP AREA 0-ALL	SURF.	HUMI.	AVG. DEGREE OF HUM. TOTAL AREA	1 METER DEEP AREA 0-ALL	SURF.	HUMI.
339	40.0	21.9	26.9	20.6	6.4	97	45	1.47	1.21	0.92	0.29	3.9	3.9	2.8	7.1
340	56.0	34.4	40.8	29.3	11.5	50	35	1.50	1.43	1.02	0.40	4.3	4.2	3.2	6.7
341	34.0	32.0	32.0	25.3	6.7	28	18	0.63	0.58	0.46	0.12	3.8	3.8	2.9	7.3
342	10.0	7.0	10.0	7.0	3.0	16	0	0.08	0.00	0.00	0.00	3.4	4.1	2.0	9.0
342 A	40.0	23.4	31.6	22.4	9.2	69	18	0.82	0.57	0.40	0.17	4.0	4.0	3.1	6.2
343	43.0	19.8	24.9	22.0	2.9	213	104	3.14	2.59	2.29	0.30	3.6	3.6	3.0	7.6
348	53.0	31.0	34.6	33.5	1.1	84	67	2.14	2.01	1.94	0.07	3.4	3.4	3.3	6.1
350	8.0	6.7	0.0	0.0	0.0	35	0	0.17	0.00	0.00	0.00	4.9	0.0	0.0	0.0
352	5.0	4.5	0.0	0.0	0.0	53	0	0.26	0.00	0.00	0.00	4.6	0.0	0.0	0.0
352 A	5.0	4.5	0.0	0.0	0.0	31	0	0.15	0.00	0.00	0.00	2.3	0.0	0.0	0.0
353	64.0	37.5	40.4	36.3	4.1	329	255	10.68	10.31	9.26	1.06	3.5	3.5	3.1	6.5
354	63.0	38.7	41.6	35.4	6.3	460	291	12.95	12.11	10.29	1.82	3.6	3.6	3.1	6.1
356	48.0	25.5	26.4	25.3	1.1	185	121	3.52	3.20	3.06	0.14	3.3	3.3	3.2	5.7
357	25.0	8.1	15.6	13.4	2.2	54	7	0.34	0.11	0.09	0.02	4.0	3.7	3.5	5.0
357 A	19.0	10.6	14.3	12.3	2.0	62	20	0.49	0.28	0.24	0.04	3.2	3.0	2.7	5.0
358	43.0	22.4	23.8	14.9	8.9	273	83	2.93	1.98	1.24	0.74	4.1	1.1	2.7	6.3
359	53.0	38.6	38.6	26.0	12.6	94	60	2.49	2.32	1.56	0.76	4.0	4.0	3.1	5.9
360	39.0	20.0	23.3	13.0	10.3	76	31	0.95	0.72	0.40	0.32	4.5	4.5	3.0	6.3
363	35.0	24.8	24.8	10.4	14.4	117	62	1.81	1.53	0.64	0.89	5.0	5.0	3.3	6.3
364	65.0	37.2	39.0	16.7	22.3	214	91	4.17	3.55	1.52	2.03	4.7	4.7	3.4	5.7

TABLE: P1: AREA AND VOLUME SUMMARY

		AVERAGE DEPTH (DM)				AREA (HA)		VOLUME (MCM)				AVG. DEGREE OF HUM.			
			1 METER DEEP AREA						1 METER DEEP AREA				1 METER DEEP AREA		
BOGNO	MAXIMUM DEPTH (DM)	TOTAL AREA	0-ALL	SURF.	HUMI.	TOTAL	>=1M DEPTH	TOTAL AREA	0-ALL	SURF.	HUMI.	TOTAL AREA	0-ALL	SURF.	HUMI.
364 A	30.0	18.7	18.7	11.0	7.7	36	14	0.37	0.26	0.15	0.11	4.9	4.9	3.4	7.0
365	22.0	19.5	19.5	4.5	15.0	14	7	0.17	0.14	0.03	0.10	6.3	6.3	3.1	7.3
367	35.0	21.0	22.6	11.1	11.5	100	25	0.94	0.57	0.28	0.29	4.1	4.1	2.7	5.5
368	49.0	29.0	29.0	15.1	14.0	176	106	3.43	3.08	1.60	1.48	4.3	4.3	2.9	5.8
369	35.0	29.8	29.8	11.3	18.5	38	24	0.78	0.71	0.27	0.44	4.9	4.9	3.7	5.7
369 A	22.0	20.0	20.0	2.3	17.7	40	19	0.48	0.38	0.04	0.34	5.9	5.9	3.3	6.2
369 B	21.0	15.2	15.2	1.8	13.4	120	45	1.06	0.68	0.08	0.60	6.3	6.3	3.4	6.7
370	28.0	18.6	20.1	10.3	9.8	106	45	1.21	0.90	0.46	0.44	4.7	4.7	3.5	6.0
371	20.0	16.5	16.5	5.0	11.5	23	10	0.23	0.16	0.05	0.11	5.6	5.6	3.0	6.7
372	20.0	13.2	16.3	6.0	10.3	61	9	0.41	0.15	0.05	0.09	4.2	4.3	2.8	5.2
373	59.0	31.7	32.5	20.1	12.4	316	190	6.80	6.17	3.82	2.35	4.3	4.3	3.3	5.8
373 A	32.0	24.8	24.8	7.2	17.6	53	28	0.82	0.69	0.20	0.49	5.2	5.2	3.3	6.0
374	18.0	12.0	13.8	6.5	7.3	66	16	0.47	0.22	0.10	0.12	4.4	4.5	3.0	5.8
375	42.0	30.5	30.5	13.3	17.2	34	21	0.71	0.64	0.28	0.36	4.1	4.1	2.6	5.2
376	55.0	33.1	34.1	21.1	13.0	495	165	7.27	5.62	3.48	2.14	4.3	4.3	3.3	5.9
376 A	54.0	33.0	33.0	23.0	10.0	65	41	1.47	1.35	0.94	0.41	4.5	4.5	3.5	6.8
377	24.0	16.2	17.6	5.8	11.8	132	30	1.04	0.53	0.17	0.35	4.2	4.3	2.3	5.3
378	24.0	15.8	18.0	8.0	10.0	80	11	0.54	0.20	0.09	0.11	4.0	4.0	2.8	5.0
379	12.0	10.5	12.0	0.0	12.0	22	5	0.14	0.06	0.00	0.06	7.2	6.9	0.0	6.9
380	19.0	10.6	16.0	4.0	12.0	39	6	0.26	0.10	0.02	0.07	6.3	6.3	4.0	7.0

TABLE: P1: AREA AND VOLUME SUMMARY

BOGNO	MAXIMUM DEPTH (DM)	AVERAGE DEPTH (DM)				AREA (HA)		VOLUME (MCM)				AVG. DEGREE OF HUM.			
		TOTAL AREA	1 METER DEEP AREA O-ALL	SURF.	HUMI.	TOTAL	>=1M DEPTH	TOTAL AREA	1 METER DEEP AREA O-ALL	SURF.	HUMI.	TOTAL AREA	1 METER DEEP AREA O-ALL	SURF.	HUMI.
381	65.0	32.0	33.7	17.9	15.8	276	149	5.65	5.02	2.67	2.35	4.3	4.4	3.0	5.8
381 A	35.0	20.4	22.6	12.6	10.0	63	33	0.89	0.74	0.41	0.33	4.0	4.1	2.7	5.9
382	37.0	21.2	21.2	4.8	16.4	34	17	0.45	0.36	0.08	0.28	5.4	5.4	2.9	6.1
383	80.0	39.0	39.0	24.8	14.2	213	102	4.53	3.98	2.53	1.45	4.4	4.4	3.4	6.0
384	19.0	14.5	14.5	2.0	12.5	24	6	0.18	0.09	0.01	0.07	6.2	6.2	3.5	6.6
386	31.0	22.0	22.0	13.7	8.3	66	25	0.75	0.55	0.34	0.21	4.2	4.2	3.0	6.1
387	46.0	30.2	30.2	21.0	9.2	36	25	0.81	0.75	0.52	0.23	3.4	3.4	2.3	5.8
388 A	38.0	19.0	20.8	5.3	15.4	194	80	2.23	1.66	0.43	1.24	5.2	5.2	2.6	6.1
389	64.0	29.0	32.6	21.6	11.0	635	341	12.60	11.13	7.38	3.75	4.0	4.0	2.9	6.2
390	57.0	21.1	24.9	10.1	14.8	375	129	4.45	3.22	1.31	1.91	5.0	5.0	3.4	6.1
391	50.0	25.5	26.9	14.9	11.9	596	222	7.83	5.96	3.31	2.65	4.3	4.3	3.2	5.7
391 A	20.0	9.1	14.0	8.0	6.0	66	6	0.38	0.08	0.05	0.04	4.8	4.9	3.1	7.3
392	45.0	21.3	22.3	11.1	11.3	261	70	2.52	1.56	0.78	0.79	4.5	4.5	2.7	6.3
392 A	22.0	20.0	20.0	4.3	15.7	40	21	0.51	0.42	0.09	0.33	4.6	4.6	2.9	5.1
393	63.0	33.2	35.3	14.5	20.8	180	131	4.87	4.62	1.90	2.72	5.0	5.0	3.6	6.0
393 A	14.0	11.0	11.8	5.5	6.3	126	8	0.68	0.09	0.04	0.05	4.7	4.9	3.7	6.0
397	55.0	32.7	32.7	1.7	31.0	39	22	0.78	0.72	0.04	0.68	4.9	4.9	3.0	5.0
399	20.0	8.0	20.0	20.0	0.0	87	5	0.51	0.10	0.10	0.00	3.9	3.0	3.0	0.0
400	55.0	39.2	45.2	33.2	12.0	117	57	2.88	2.58	1.89	0.68	3.6	3.6	2.2	7.2
405	53:0	33.0	33.0	23.3	9.8	47	32	1.13	1.06	0.74	0.31	4.1	4.1	3.5	5.4

TABLE: P1: AREA AND VOLUME SUMMARY

BOGNO	MAXIMUM DEPTH (DM)	AVERAGE DEPTH (DM)				AREA (HA)		VOLUME (MCM)				AVG. DEGREE OF HUM.			
			1 METER DEEP AREA						1 METER DEEP AREA				1 METER DEEP AREA		
		TOTAL AREA	0-ALL	SURF.	HUMI.	TOTAL	>=1M DEPTH	TOTAL AREA	0-ALL	SURF.	HUMI.	TOTAL AREA	0-ALL	SURF.	HUMI.
408	27.0	20.0	20.0	4.3	15.7	20	10	0.25	0.20	0.04	0.16	5.6	5.6	2.7	5.4
414	50.0	26.3	26.3	9.3	17.0	82	56	1.60	1.47	0.52	0.95	4.8	4.8	2.9	5.9
415	37.0	20.8	23.8	4.8	19.0	83	41	1.18	0.97	0.19	0.78	6.0	6.1	2.7	6.9
416	26.0	20.0	20.0	3.0	17.0	19	8	0.21	0.16	0.02	0.14	4.5	4.5	3.0	4.8
417	51.0	40.0	40.0	15.0	25.0	46	9	0.54	0.36	0.13	0.22	4.9	4.9	4.3	5.3
419	21.0	15.7	15.7	3.0	12.7	83	35	0.79	0.55	0.10	0.44	5.2	5.2	3.6	5.6
423	15.0	8.6	12.0	9.5	2.5	77	3	0.41	0.04	0.03	0.01	3.8	3.9	3.5	5.4
426	27.0	16.2	18.0	2.4	15.6	143	40	1.23	0.72	0.10	0.62	5.8	5.7	3.5	6.1
428	53.0	28.9	28.9	6.1	22.8	112	74	2.33	2.14	0.45	1.69	5.2	5.2	3.1	5.8
429	28.0	17.3	18.6	6.6	12.0	267	111	2.84	2.06	0.73	1.33	5.3	5.3	3.0	6.6
429 A	20.0	12.0	15.1	3.9	11.3	111	46	1.02	0.70	0.18	0.52	5.3	5.4	3.0	6.3
430	28.0	18.7	18.7	3.9	14.9	124	46	1.25	0.86	0.18	0.68	6.6	6.6	3.6	7.3
431	30.0	10.8	19.4	7.6	11.8	324	15	1.84	0.29	0.11	0.18	4.6	4.6	3.2	5.6
431 A	18.0	9.0	18.0	4.0	14.0	66	5	0.39	0.09	0.02	0.07	5.0	5.6	3.0	6.4
431 B	28.0	18.4	21.0	5.0	16.0	51	19	0.56	0.40	0.09	0.30	5.0	4.9	2.7	5.5
431 C	8.0	7.7	0.0	0.0	0.0	38	0	0.19	0.00	0.00	0.00	5.9	0.0	0.0	0.0
432	40.0	19.2	21.4	15.2	6.2	169	70	1.99	1.50	1.06	0.43	3.8	3.8	2.7	6.6
432 A	16.0	10.2	13.3	9.0	4.3	108	11	0.63	0.15	0.10	0.05	4.3	4.2	2.6	7.7
433	20.0	19.0	19.0	9.0	10.0	36	5	0.25	0.09	0.04	0.05	5.1	5.1	2.9	7.0
434	48.0	24.5	27.3	15.3	12.0	852	332	11.67	9.07	5.08	3.99	4.5	4.5	3.2	6.2

TABLE: P1: AREA AND VOLUME SUMMARY

BOGNO	MAXIMUM DEPTH (DM)	AVERAGE DEPTH (DM)				AREA (HA)		VOLUME (MCM)				AVG. DEGREE OF HUM.			
			1 METER DEEP AREA						1 METER DEEP AREA				1 METER DEEP AREA		
		TOTAL AREA	O-ALL	SURF.	HUMI.	TOTAL	>=1M DEPTH	TOTAL AREA	O-ALL	SURF.	HUMI.	TOTAL AREA	O-ALL	SURF.	HUMI.
434 A	34.0	17.4	17.4	12.6	4.8	113	51	1.20	0.89	0.64	0.24	3.6	3.6	2.5	6.7
435	16.0	14.7	14.7	6.3	8.3	24	11	0.23	0.16	0.07	0.09	5.3	5.3	3.1	6.9
436	31.0	27.3	27.3	17.7	9.7	14	9	0.27	0.25	0.16	0.09	4.3	4.3	3.3	6.1
437	20.0	13.0	15.4	8.8	6.6	302	71	2.25	1.09	0.63	0.47	4.0	4.2	2.4	6.6
438	42.0	24.2	26.3	15.0	11.3	180	92	2.86	2.42	1.38	1.04	4.3	4.3	3.0	6.0
438 A	5.0	5.0	0.0	0.0	0.0	57	0	0.28	0.00	0.00	0.00	4.9	0.0	0.0	0.0
439	17.0	9.1	12.4	4.1	8.3	250	49	1.61	0.61	0.20	0.41	5.1	5.5	3.1	6.7
440	43.0	20.2	23.1	7.8	15.3	587	180	6.20	4.16	1.40	2.76	4.7	4.8	3.1	5.6
440 A	9.0	8.3	0.0	0.0	0.0	56	6	0.25	0.00	0.00	0.00	4.5	0.0	0.0	0.0
441 A	16.0	12.7	12.7	10.3	2.3	32	9	0.23	0.11	0.09	0.02	4.3	4.3	3.9	6.3
442	18.0	13.0	13.6	5.7	7.9	232	35	1.46	0.47	0.20	0.28	5.1	5.1	2.7	6.8
442 A	10.0	8.3	10.0	4.0	6.0	39	11	0.25	0.11	0.04	0.07	4.7	5.6	2.0	8.0
443	19.0	11.5	13.1	5.3	7.9	200	41	1.33	0.54	0.22	0.32	5.2	5.4	3.0	7.1
443 A	18.0	13.5	15.0	4.3	10.7	40	12	0.32	0.18	0.05	0.13	5.3	5.6	2.0	7.0
444	15.0	10.7	13.0	8.0	5.0	146	25	0.93	0.32	0.20	0.13	4.0	4.2	2.8	6.3
445	7.0	5.0	0.0	0.0	0.0	16	0	0.08	0.00	0.00	0.00	5.7	0.0	0.0	0.0
446	29.0	19.2	19.2	3.8	15.4	75	38	0.92	0.73	0.14	0.59	5.2	5.2	3.0	5.8
447	30.0	19.4	19.4	5.4	14.0	36	21	0.48	0.41	0.11	0.29	5.4	5.4	2.3	6.7
448	52.0	18.2	26.2	13.0	13.2	253	42	2.16	1.10	0.55	0.56	4.7	4.6	3.0	6.1
448 A	27.0	16.4	18.3	4.8	13.5	156	15	0.98	0.27	0.07	0.20	5.7	5.9	2.8	6.9

TABLE: P1: AREA AND VOLUME SUMMARY

BOGNO	MAXIMUM DEPTH (DM)	AVERAGE DEPTH (DM)				AREA (HA)		VOLUME (MCM)				AVG. DEGREE OF HUM.			
		TOTAL AREA	1 METER DEEP AREA			TOTAL	>=1M DEPTH	TOTAL AREA	1 METER DEEP AREA			TOTAL AREA	1 METER DEEP AREA		
			O-ALL	SURF.	HUMI.				O-ALL	SURF.	HUMI.		O-ALL	SURF.	HUMI.
448 B	14.0	7.7	14.0	2.0	12.0	55	4	0.31	0.06	0.01	0.05	6.1	6.2	4.0	6.6
448 C	19.0	11.6	13.5	2.5	11.0	287	33	1.72	0.45	0.08	0.36	5.7	5.9	3.4	6.5
449	17.0	12.2	14.0	4.8	9.3	174	20	1.05	0.28	0.09	0.18	5.0	4.8	2.5	6.0
449 A	9.0	5.3	0.0	0.0	0.0	60	0	0.40	0.00	0.00	0.00	4.9	0.0	0.0	0.0
449 B	44.0	24.5	24.5	17.3	7.3	85	23	0.87	0.56	0.40	0.17	3.9	3.9	3.2	5.6
449 C	16.0	12.8	14.3	6.0	8.3	73	16	0.51	0.23	0.10	0.13	4.4	4.3	2.7	5.4
450	40.0	16.7	20.4	5.9	14.6	327	101	3.19	2.06	0.59	1.47	5.5	5.5	2.5	6.7
451	30.0	15.1	16.6	5.3	11.3	147	28	1.06	0.46	0.15	0.32	5.2	5.3	2.7	6.6
456	39.0	17.0	18.8	8.1	10.8	215	92	2.35	1.73	0.74	0.99	4.8	5.0	3.1	6.4
457	25.0	14.8	18.3	9.0	9.3	76	31	0.79	0.57	0.28	0.29	4.6	4.7	2.6	6.8
457 A	18.0	15.3	15.3	5.0	10.3	43	20	0.42	0.30	0.10	0.20	5.6	5.6	3.2	6.7
458	19.0	13.0	13.0	7.5	5.5	15	6	0.12	0.08	0.04	0.03	4.6	4.6	3.0	6.8
459	53.0	35.1	35.1	16.3	18.9	105	59	2.30	2.07	0.96	1.11	4.4	4.4	3.2	5.4
460	32.0	26.8	26.8	5.5	21.3	48	28	0.85	0.75	0.16	0.59	5.4	5.4	3.1	6.0
460 A	14.0	12.5	12.5	4.0	8.5	58	8	0.35	0.10	0.03	0.07	5.7	5.7	2.8	7.1
461	24.0	18.3	18.3	7.3	11.0	44	13	0.39	0.24	0.10	0.14	5.0	5.0	2.5	6.7
462	23.0	18.0	22.5	7.5	15.0	16	12	0.29	0.27	0.09	0.18	5.3	5.4	2.7	6.8
462 A	45.0	27.8	27.8	12.0	15.8	47	25	0.80	0.69	0.30	0.39	4.4	4.4	2.8	5.7
465	6.0	4.1	0.0	0.0	0.0	242	0	1.21	0.00	0.00	0.00	7.0	0.0	0.0	0.0
466	29.0	9.2	14.1	2.4	11.7	1283	100	7.32	1.41	0.24	1.17	4.9	4.9	4.0	5.1

TABLE: P1: AREA AND VOLUME SUMMARY

BOGNO	MAXIMUM DEPTH (DM)	AVERAGE DEPTH (DM)				AREA (HA)		VOLUME (MCM)				AVG. DEGREE OF HUM.			
			1 METER DEEP AREA						1 METER DEEP AREA				1 METER DEEP AREA		
		TOTAL AREA	O-ALL	SURF.	HUMI.	TOTAL	>=1M DEPTH	TOTAL AREA	O-ALL	SURF.	HUMI.	TOTAL AREA	O-ALL	SURF.	HUMI.
467	10.0	4.7	0.0	0.0	0.0	57	3	0.27	0.00	0.00	0.00	6.4	0.0	0.0	0.0
468	8.0	4.5	0.0	0.0	0.0	107	0	0.53	0.00	0.00	0.00	6.8	0.0	0.0	0.0
468 A	24.0	16.3	17.1	3.4	13.7	335	26	1.99	0.44	0.09	0.36	2.8	2.7	3.6	2.5
469	70.0	24.4	25.1	6.5	18.6	2727	2196	57.80	55.14	14.27	40.87	5.1	5.1	3.8	5.6
469 A	19.0	9.8	15.0	4.0	11.0	41	12	0.32	0.18	0.05	0.13	5.2	5.2	2.6	6.2
470	36.0	22.0	22.0	0.0	22.0	44	14	0.46	0.31	0.00	0.31	7.2	7.2	0.0	7.2
470 A	40.0	17.0	21.0	5.2	15.8	65	23	0.69	0.48	0.12	0.36	4.9	4.8	3.6	5.2
473	40.0	7.3	13.0	5.0	8.0	277	72	1.96	0.94	0.36	0.58	4.0	3.8	4.0	3.6
474	34.0	16.1	17.3	2.2	15.1	247	94	2.39	1.63	0.21	1.42	5.8	5.8	4.0	6.1
475	38.0	12.3	16.8	0.8	16.0	459	79	3.22	1.32	0.06	1.26	6.0	6.0	4.0	6.1
476	60.0	17.6	17.6	8.1	9.4	239	80	2.20	1.41	0.65	0.75	5.0	5.0	4.0	5.9
479	50.0	19.2	22.5	12.2	10.3	392	155	4.68	3.49	1.89	1.60	4.5	4.5	3.0	6.4
479 A	25.0	15.0	17.0	3.8	13.3	34	9	0.32	0.15	0.03	0.12	6.1	6.1	2.4	7.2
480	11.0	10.0	11.0	5.0	6.0	58	4	0.31	0.04	0.02	0.02	4.9	5.5	3.4	7.2
480 A	36.0	19.5	19.5	7.7	11.8	54	24	0.62	0.47	0.18	0.28	4.7	4.7	2.8	6.0
481	33.0	26.8	26.8	11.6	15.2	60	32	1.00	0.86	0.37	0.49	4.2	4.2	3.3	4.9
482	23.0	16.0	20.0	13.3	6.7	30	16	0.39	0.32	0.21	0.11	3.7	3.8	2.7	5.8
483	17.0	11.8	16.5	7.5	9.0	18	3	0.12	0.05	0.02	0.03	4.3	5.1	2.7	7.1
484	23.0	12.3	15.0	7.5	7.5	13	2	0.08	0.03	0.01	0.01	3.7	4.0	2.0	6.1
486	60.0	39.1	39.1	24.7	14.4	172	144	5.77	5.63	3.56	2.07	4.1	4.1	3.2	5.6

TABLE: P1: AREA AND VOLUME SUMMARY

BOGNO	MAXIMUM DEPTH (DM)	AVERAGE DEPTH (DM)				AREA (HA)		VOLUME (MCM)				AVG. DEGREE OF HUM.			
		TOTAL AREA	1 METER DEEP AREA O-ALL	SURF.	HUMI.	TOTAL	>=1M DEPTH	TOTAL AREA	1 METER DEEP AREA O-ALL	SURF.	HUMI.	TOTAL AREA	1 METER DEEP AREA O-ALL	SURF.	HUMI.
486 A	19.0	15.7	15.7	4.3	11.3	16	6	0.14	0.09	0.03	0.07	5.6	5.6	2.3	6.9
486 B	27.0	19.3	19.3	9.3	10.0	37	12	0.36	0.23	0.11	0.12	5.5	5.5	3.7	7.2
487	19.0	14.6	16.5	5.3	11.3	63	11	0.44	0.18	0.06	0.12	4.9	5.0	2.4	6.2
488 A	30.0	15.7	18.2	6.8	11.4	36	20	0.44	0.36	0.14	0.23	5.3	5.3	3.1	6.6
489 A	25.0	11.8	17.0	9.7	7.3	27	8	0.23	0.14	0.08	0.06	4.1	4.2	2.1	7.1
490	10.0	6.8	10.0	5.0	5.0	18	0	0.09	0.00	0.00	0.00	3.6	4.2	2.0	6.4
490 A	29.0	19.0	21.5	9.0	12.5	90	25	0.86	0.54	0.22	0.31	5.5	5.7	3.0	7.6
491	49.0	22.2	26.3	18.8	7.5	170	96	2.89	2.52	1.80	0.72	4.1	4.1	3.2	6.3
491 A	20.0	14.5	17.3	8.3	9.0	19	5	0.16	0.09	0.04	0.04	4.7	4.9	2.8	6.9
492	59.0	20.0	34.7	17.7	17.0	98	28	1.32	0.97	0.50	0.48	5.0	4.9	3.3	6.7
493 A	46.0	26.8	30.3	19.9	10.5	60	50	1.57	1.52	0.99	0.52	4.5	4.5	3.4	6.5
494	52.0	25.3	31.2	22.7	8.5	329	194	6.72	6.05	4.41	1.64	4.2	4.2	3.1	7.0
494 A	25.0	13.4	15.5	7.5	8.0	65	10	0.53	0.15	0.07	0.08	4.5	4.6	2.9	6.3
494 B	25.0	14.3	20.5	11.5	9.0	41	17	0.47	0.35	0.20	0.15	4.2	4.4	3.4	5.8
495	38.0	10.5	20.0	21.0	7.0	24	7	0.28	0.20	0.15	0.05	3.9	3.8	2.8	6.6
496	45.0	24.2	27.8	18.0	9.8	70	43	1.33	1.20	0.77	0.42	3.8	3.8	3.1	5.3
496 A	22.0	13.4	15.3	8.8	6.5	39	16	0.36	0.24	0.14	0.10	4.2	4.4	2.9	6.3
497	55.0	27.2	30.2	17.1	13.1	142	90	2.98	2.72	1.54	1.18	4.2	4.2	3.3	5.2
497 A	22.0	17.5	17.5	6.5	11.0	47	20	0.48	0.35	0.13	0.22	4.1	4.1	2.2	5.1
498	32.0	20.1	21.4	7.7	13.7	177	140	3.18	2.99	1.08	1.92	5.0	5.0	2.7	6.3

TABLE: P1: AREA AND VOLUME SUMMARY

BOGNO	MAXIMUM DEPTH (DM)	AVERAGE DEPTH (DM)				AREA (HA)		VOLUME (MCM)				AVG. DEGREE OF HUM.			
		TOTAL AREA	1 METER DEEP AREA O-ALL	SURF.	HUMI.	TOTAL	>=1M DEPTH	TOTAL AREA	1 METER DEEP AREA O-ALL	SURF.	HUMI.	TOTAL AREA	1 METER DEEP AREA O-ALL	SURF.	HUMI.
502	22.0	12.9	15.1	11.3	3.8	118	42	1.01	0.63	0.47	0.16	4.0	4.1	3.0	7.3
502 A	25.0	15.6	18.4	8.5	9.9	70	40	0.89	0.74	0.34	0.40	4.2	4.3	2.8	5.5
503	47.0	19.4	22.1	14.4	7.7	180	68	2.06	1.50	0.98	0.52	4.3	4.3	2.9	6.9
503 A	30.0	21.9	21.9	19.1	2.7	38	24	0.59	0.52	0.46	0.07	3.4	3.4	3.0	6.2
506 A	45.0	32.3	32.3	9.5	22.8	58	37	1.30	1.19	0.35	0.84	5.3	5.3	2.6	6.4
507	45.0	22.6	25.7	14.9	10.8	307	195	5.57	5.01	2.91	2.11	4.8	4.8	3.2	7.0
507 A	29.0	14.2	17.2	8.5	8.7	120	42	1.11	0.72	0.36	0.37	4.3	4.4	2.4	6.4
508	28.0	16.0	17.8	9.4	8.4	138	47	1.29	0.84	0.44	0.40	4.3	4.3	2.2	6.7
510	30.0	22.0	22.0	12.5	9.5	91	51	1.27	1.12	0.64	0.48	4.3	4.3	3.0	5.9
511	30.0	25.8	25.8	18.5	7.3	58	25	0.81	0.64	0.46	0.18	3.9	3.9	2.6	7.1
512	39.0	18.0	19.8	12.7	7.1	128	63	1.57	1.25	0.80	0.45	4.1	4.1	2.8	6.5
513	41.0	18.7	25.2	14.2	11.0	198	71	2.43	1.79	1.01	0.78	4.5	4.4	3.1	6.2
513 A	39.0	17.2	19.5	8.3	11.3	40	16	0.43	0.31	0.13	0.18	4.5	4.6	2.9	5.9
513 B	16.0	13.2	13.2	10.2	3.0	43	19	0.37	0.28	0.19	0.06	3.5	3.5	2.4	7.0
514	50.0	19.7	27.1	23.1	3.9	95	57	1.73	1.54	1.32	0.22	3.9	3.7	3.0	7.6
514 A	28.0	16.5	18.8	15.1	3.7	27	17	0.37	0.32	0.26	0.06	3.7	3.7	3.0	6.7
515	54.0	21.7	29.1	25.1	4.0	153	68	2.40	1.98	1.71	0.27	3.7	3.6	3.1	6.8
516	71.0	37.3	39.9	32.1	7.9	177	123	5.18	4.91	3.94	0.97	3.9	3.9	3.3	6.3
517	82.0	43.3	47.7	40.8	6.8	252	151	7.70	7.20	6.17	1.03	3.7	3.7	3.3	6.0
517 A	43.0	24.2	28.0	25.2	2.8	82	30	1.28	1.08	0.98	0.11	3.8	3.7	3.3	8.0

TABLE: P1: AREA AND VOLUME SUMMARY

BOGNO	MAXIMUM DEPTH (DM)	AVERAGE DEPTH (DM)				AREA (HA)		VOLUME (MCM)				AVG. DEGREE OF HUM.			
		TOTAL AREA	1 METER DEEP AREA			TOTAL	>=1M DEPTH	TOTAL AREA	1 METER DEEP AREA			TOTAL AREA	1 METER DEEP AREA		
			O-ALL	SURF.	HUMI.				O-ALL	SURF.	HUMI.		O-ALL	SURF.	HUMI.
518	27.0	18.4	21.3	18.0	3.3	105	56	1.43	1.19	1.01	0.18	0.0	0.0	0.0	0.0
522	55.0	36.2	36.2	26.4	9.7	193	161	5.98	5.82	4.26	1.56	3.7	3.7	2.9	5.8
522 A	36.0	19.3	21.6	14.4	7.1	56	21	0.63	0.45	0.30	0.15	4.5	4.6	3.5	6.8
523	25.0	11.0	14.8	10.5	4.2	56	27	0.55	0.40	0.29	0.11	4.1	4.1	3.2	6.2
524	90.0	39.6	42.4	33.1	9.3	1236	1128	49.17	48.70	38.00	10.69	3.9	3.9	3.4	5.9
525	62.0	26.9	31.3	18.5	12.9	321	167	6.00	5.23	3.09	2.15	4.4	4.3	3.4	5.6
525 A	25.0	14.4	16.2	8.8	7.5	37	21	0.42	0.34	0.18	0.16	4.4	4.5	2.9	6.3
526	30.0	14.3	15.4	10.8	4.6	233	66	1.86	1.02	0.71	0.30	4.5	4.5	3.2	7.7
527	64.0	27.1	28.9	20.1	8.8	605	377	12.02	10.88	7.56	3.32	4.0	4.0	3.0	6.3
528	63.0	30.2	31.7	19.9	11.8	139	59	2.27	1.87	1.17	0.70	4.3	4.3	3.3	6.0
528 A	18.0	13.5	13.5	13.0	0.5	27	8	0.20	0.11	0.10	0.00	2.7	2.7	2.5	7.7
529	74.0	36.2	36.8	12.8	24.0	974	608	24.22	22.39	7.80	14.59	5.2	5.2	3.1	6.3
530	67.0	26.6	26.6	19.0	7.5	483	428	11.64	11.37	8.15	3.22	3.8	3.8	2.6	6.6
531	13.0	6.6	11.3	3.9	7.4	80	9	0.46	0.10	0.03	0.07	6.0	6.5	2.7	8.5
531 A	52.0	35.3	35.3	32.4	2.9	32	23	0.86	0.81	0.75	0.07	3.6	3.6	3.4	6.5
532	64.0	36.3	37.0	23.3	13.7	576	494	18.66	18.25	11.49	6.77	4.2	4.2	3.0	6.4
536	79.0	37.0	40.3	25.6	14.7	265	220	9.10	8.87	5.64	3.23	4.4	4.4	3.4	6.1
537	25.0	10.2	16.1	15.1	1.0	148	53	1.33	0.85	0.80	0.06	3.4	3.1	3.0	5.0
541	66.0	37.6	40.3	32.9	7.4	106	85	3.53	3.42	2.80	0.63	3.9	3.9	3.4	6.2
541 A	48.0	29.4	29.4	16.5	12.8	40	22	0.74	0.65	0.37	0.28	4.5	4.6	3.4	6.2

TABLE: P1: AREA AND VOLUME SUMMARY

BOGNO	MAXIMUM DEPTH (DM)	AVERAGE DEPTH (DM) TOTAL AREA	1 METER DEEP AREA O-ALL	SURF.	HUMI.	AREA (HA) TOTAL	>=1M DEPTH	VOLUME (MCM) TOTAL AREA	1 METER DEEP AREA O-ALL	SURF.	HUMI.	AVG. DEGREE OF HUM. TOTAL AREA	1 METER DEEP AREA O-ALL	SURF.	HUMI.
542	30.0	17.1	21.7	19.0	2.8	192	77	2.25	1.67	1.46	0.21	3.6	3.4	3.1	5.9
544	46.0	22.8	26.3	21.3	5.0	95	60	1.75	1.58	1.28	0.30	3.8	3.8	3.1	6.7
546	35.0	21.4	23.9	15.3	8.6	30	19	0.55	0.45	0.29	0.16	4.1	4.2	3.3	5.6
547	90.0	39.8	44.9	30.6	14.3	180	127	5.97	5.71	3.89	1.82	4.2	4.1	3.4	5.6
548	48.0	21.5	25.9	21.9	4.0	106	67	1.93	1.74	1.47	0.27	3.3	3.3	2.9	5.5
549	62.0	33.7	37.6	30.2	7.4	123	91	3.58	3.42	2.74	0.68	3.8	3.8	3.3	5.7
550	80.0	27.8	34.9	15.3	19.6	67	51	1.86	1.78	0.78	1.00	5.0	5.0	3.7	5.9
551	76.0	34.6	37.7	19.0	18.7	202	146	5.79	5.51	2.78	2.73	4.8	4.8	3.1	6.5
551 A	30.0	18.4	21.0	15.6	5.4	62	35	0.87	0.73	0.55	0.19	3.6	3.6	2.6	6.6
552	70.0	39.8	42.2	27.7	14.5	410	353	15.20	14.91	9.78	5.13	4.1	4.1	3.2	5.9
553	54.0	33.6	34.3	27.5	6.8	162	139	4.88	4.76	3.82	0.94	3.8	3.8	3.2	6.2
553 A	16.0	12.4	13.0	6.5	6.5	32	10	0.24	0.13	0.06	0.06	4.8	4.9	2.6	7.3
554	41.0	15.1	23.8	19.1	4.7	302	130	3.96	3.10	2.49	0.61	3.5	3.6	3.0	6.4
554 A	31.0	14.5	19.0	16.4	2.6	37	15	0.39	0.28	0.25	0.04	3.0	3.2	2.7	6.3
555	43.0	27.1	29.9	19.6	10.3	23	15	0.49	0.45	0.29	0.15	4.7	4.8	3.5	7.3
559	45.0	24.1	27.4	20.5	6.9	121	54	1.82	1.48	1.11	0.37	4.0	4.0	3.2	6.4
559 A	34.0	18.2	24.3	16.8	7.5	30	12	0.38	0.29	0.20	0.09	4.6	4.4	3.1	7.2
561	60.0	20.2	29.3	17.0	12.3	325	243	7.52	7.11	4.13	2.98	4.1	4.1	2.7	6.1
562	74.0	34.0	34.8	25.5	9.3	541	379	13.99	13.18	9.65	3.53	4.0	4.0	2.9	6.9
563	35.0	18.0	22.1	7.5	14.6	73	43	1.10	0.95	0.32	0.63	5.4	5.4	3.2	6.5

TABLE: P1: AREA AND VOLUME SUMMARY

BOGNO	MAXIMUM DEPTH (DM)	AVERAGE DEPTH (DM) TOTAL AREA	AVERAGE DEPTH (DM) 1 METER DEEP AREA 0-ALL	AVERAGE DEPTH (DM) 1 METER DEEP AREA SURF.	AVERAGE DEPTH (DM) 1 METER DEEP AREA HUMI.	AREA (HA) TOTAL	AREA (HA) >=1M DEPTH	VOLUME (MCM) TOTAL AREA	VOLUME (MCM) 1 METER DEEP AREA 0-ALL	VOLUME (MCM) 1 METER DEEP AREA SURF.	VOLUME (MCM) 1 METER DEEP AREA HUMI.	AVG. DEGREE OF HUM. TOTAL AREA	AVG. DEGREE OF HUM. 1 METER DEEP AREA 0-ALL	AVG. DEGREE OF HUM. 1 METER DEEP AREA SURF.	AVG. DEGREE OF HUM. 1 METER DEEP AREA HUMI.
564	24.0	9.3	15.7	12.1	3.6	134	34	1.03	0.53	0.41	0.12	3.9	3.6	3.2	5.0
565 A	45.0	19.2	23.4	2.5	20.9	107	61	1.66	1.43	0.15	1.27	5.8	5.7	3.8	5.9
566	26.0	16.6	19.6	11.0	8.6	31	18	0.42	0.35	0.20	0.15	4.3	4.4	3.2	5.9
567	77.0	37.3	44.2	29.8	14.4	103	74	3.42	3.27	2.21	1.06	4.1	4.1	3.2	5.8
568	78.0	40.3	40.7	27.8	12.9	340	264	11.12	10.74	7.33	3.41	4.1	4.1	2.9	6.6
569	44.0	23.3	25.6	16.0	9.6	290	226	6.11	5.79	3.62	2.17	4.4	4.4	3.2	6.3
570	35.0	18.7	22.4	14.4	8.0	111	65	1.69	1.46	0.94	0.52	4.6	4.6	3.0	7.4
574	37.0	23.7	25.9	20.5	5.5	117	80	2.26	2.07	1.64	0.44	3.9	3.9	3.1	6.9
575	44.0	24.3	31.3	18.7	12.6	118	71	2.46	2.22	1.33	0.89	4.7	4.5	2.9	7.0
575 A	26.0	20.5	20.5	12.3	8.3	16	6	0.17	0.12	0.07	0.05	4.5	4.5	3.0	6.6
576	74.0	39.2	39.8	26.0	13.8	217	140	5.96	5.67	3.65	1.93	4.1	4.1	3.0	6.2
577	52.0	27.5	33.3	26.7	6.7	77	54	1.91	1.80	1.44	0.36	4.0	3.9	3.1	6.9
578	39.0	15.9	19.0	15.2	3.7	85	56	1.21	1.06	0.85	0.21	3.8	3.7	3.1	6.0
578 A	29.0	14.4	17.8	12.5	5.3	37	19	0.43	0.34	0.24	0.10	4.3	4.3	3.0	7.3
579	40.0	30.0	30.0	29.0	1.0	34	25	0.79	0.75	0.72	0.02	3.2	3.2	3.0	6.5
579 A	29.0	19.6	19.6	11.4	8.1	32	22	0.48	0.43	0.25	0.18	4.6	4.6	3.0	6.8
580	79.0	48.1	48.9	36.7	12.1	221	170	9.56	8.31	6.24	2.06	3.9	3.9	2.8	7.0
581	85.0	46.1	46.7	27.4	19.4	770	680	32.23	31.78	18.61	13.18	4.5	4.5	3.2	6.4
582	78.0	41.1	42.0	24.6	17.4	2172	1844	79.06	77.42	45.32	32.11	4.6	4.6	3.4	6.3
583	23.0	14.7	15.1	9.8	5.4	88	50	0.95	0.76	0.49	0.27	4.5	4.4	3.1	6.8

TABLE: P1: AREA AND VOLUME SUMMARY

		AVERAGE DEPTH (DM)				AREA (HA)		VOLUME (MCM)				AVG. DEGREE OF HUM.			
			1 METER DEEP AREA						1 METER DEEP AREA				1 METER DEEP AREA		
BOGNO	MAXIMUM DEPTH (DM)	TOTAL AREA	O-ALL	SURF.	HUMI.	TOTAL	>=1M DEPTH	TOTAL AREA	O-ALL	SURF.	HUMI.	TOTAL AREA	O-ALL	SURF.	HUMI.
585	16.0	7.8	13.0	8.0	5.0	72	8	0.42	0.10	0.06	0.04	4.4	4.5	3.1	6.8
587	28.0	24.3	24.3	14.0	10.3	30	19	0.52	0.46	0.27	0.20	4.4	4.4	2.6	6.9
588	33.0	20.8	20.8	8.0	12.8	30	18	0.43	0.37	0.14	0.23	5.1	5.1	3.2	6.2
589	22.0	16.3	16.3	4.0	12.3	28	17	0.33	0.28	0.07	0.21	5.3	5.3	3.2	5.9
589 A	22.0	19.5	19.5	19.5	0.0	35	20	0.46	0.39	0.39	0.00	2.9	2.9	2.9	0.0
590	45.0	18.5	23.8	17.3	6.5	100	53	1.60	1.26	0.92	0.34	4.1	4.1	3.1	6.7
591	83.0	42.8	42.9	29.0	14.0	1234	1060	46.38	45.51	30.70	14.81	4.1	4.1	2.9	6.5
592	82.0	37.6	37.6	25.3	12.3	589	400	15.13	13.99	9.40	4.59	4.0	4.0	2.8	6.5
592 A	10.0	5.0	0.0	0.0	0.0	45	0	0.22	0.00	0.00	0.00	5.4	0.0	0.0	0.0
593	26.0	12.8	17.7	12.0	5.7	88	28	0.80	0.50	0.34	0.16	3.8	4.0	3.1	6.0
597	60.0	28.5	31.4	23.0	8.4	151	96	3.29	3.02	2.21	0.81	4.1	4.1	3.3	6.3
598	72.0	29.5	36.2	23.4	12.8	210	135	5.26	4.88	3.15	1.73	4.3	4.3	3.5	5.9
599	35.0	16.8	19.3	10.5	8.8	62	29	0.73	0.56	0.30	0.26	4.8	4.8	3.1	6.8
600	46.0	23.6	23.9	14.7	9.2	394	150	4.80	3.58	2.20	1.38	4.6	4.6	2.8	7.5
600 A	4.0	3.0	0.0	0.0	0.0	18	0	0.09	0.00	0.00	0.00	4.4	0.0	0.0	0.0
601	20.0	11.0	20.0	13.0	7.0	18	4	0.15	0.08	0.05	0.03	3.8	4.0	2.8	6.3
606	39.0	25.3	25.3	21.0	4.3	113	53	1.64	1.34	1.11	0.23	3.5	3.5	2.9	6.4
608 A	32.0	20.5	20.5	10.3	10.2	44	18	0.50	0.37	0.19	0.18	4.2	4.2	2.3	6.1
609	15.0	11.8	11.8	9.3	2.5	51	6	0.32	0.11	0.08	0.02	3.5	3.5	2.7	6.4
610	8.0	5.0	0.0	0.0	0.0	20	0	0.10	0.00	0.00	0.00	3.5	0.0	0.0	0.0

TABLE: P1: AREA AND VOLUME SUMMARY

BOGNO	MAXIMUM DEPTH (DM)	AVERAGE DEPTH (DM)				AREA (HA)		VOLUME (MCM)				AVG. DEGREE OF HUM.			
		TOTAL AREA	1 METER DEEP AREA			TOTAL	>=1M DEPTH	TOTAL AREA	1 METER DEEP AREA			TOTAL AREA	1 METER DEEP AREA		
			O-ALL	SURF.	HUMI.				O-ALL	SURF.	HUMI.		O-ALL	SURF.	HUMI.
611	18.0	11.6	14.0	2.7	11.3	57	20	0.46	0.28	0.05	0.23	5.5	5.7	3.4	6.3
612	14.0	10.0	11.8	5.0	6.8	39	12	0.28	0.14	0.06	0.08	4.7	5.3	2.5	7.4
615	60.0	29.5	30.9	23.8	7.2	94	71	2.31	2.20	1.69	0.51	3.8	3.7	3.0	6.3
618	59.0	33.2	35.4	29.5	5.8	73	51	1.91	1.80	1.51	0.30	3.5	3.5	3.0	5.9
619	49.0	30.2	38.2	31.7	6.5	32	25	0.99	0.95	0.79	0.16	3.4	3.4	2.8	6.8
620	48.0	28.8	28.8	26.2	2.6	27	19	0.59	0.55	0.50	0.05	3.5	3.5	3.2	6.5
621	42.0	26.6	31.3	30.3	1.0	25	17	0.57	0.53	0.51	0.02	3.3	3.3	3.2	6.0
622	43.0	30.4	30.4	26.6	3.8	35	23	0.76	0.70	0.61	0.09	2.9	2.9	2.5	6.1
623	60.0	25.5	25.5	18.5	7.1	72	40	1.18	1.02	0.74	0.28	3.8	3.8	3.3	5.4
625	43.0	36.0	36.0	25.9	10.1	27	20	0.75	0.72	0.52	0.20	3.6	3.6	3.1	4.9
627	35.0	23.0	23.0	20.2	2.8	39	21	0.57	0.48	0.42	0.06	3.4	3.4	3.1	5.1
628	34.0	23.2	23.2	18.9	4.3	84	46	1.26	1.07	0.87	0.20	3.2	3.2	2.5	6.5
629	34.0	20.1	21.8	19.5	2.3	93	46	1.24	1.00	0.90	0.11	3.3	3.3	3.0	6.2
631	54.0	20.7	28.9	21.0	8.9	207	109	3.75	3.26	2.29	0.97	4.0	4.0	3.1	6.3
632	43.0	28.8	35.7	29.0	6.7	28	15	0.60	0.53	0.43	0.10	3.6	3.5	3.1	5.3
633	44.0	23.5	26.2	20.8	5.3	90	59	1.70	1.54	1.23	0.31	3.6	3.6	2.9	6.3
634	38.0	22.4	24.4	21.4	3.0	39	18	0.54	0.44	0.39	0.05	3.7	3.6	3.1	7.6
635	18.0	13.2	16.3	13.3	3.0	34	9	0.27	0.15	0.12	0.03	3.1	3.2	2.3	7.3
636	37.0	18.0	21.8	16.2	5.7	49	18	0.55	0.39	0.29	0.10	3.9	3.9	3.0	6.5
638	30.0	18.0	20.0	18.0	2.0	45	12	0.40	0.24	0.22	0.02	3.2	3.1	2.7	6.9

TABLE: P1: AREA AND VOLUME SUMMARY

BOGNO	MAXIMUM DEPTH (DM)	AVERAGE DEPTH (DM)				AREA (HA)		VOLUME (MCM)				AVG. DEGREE OF HUM.			
		TOTAL AREA	1 METER DEEP AREA 0-ALL	SURF.	HUMI.	TOTAL	>=1M DEPTH	TOTAL AREA	1 METER DEEP AREA 0-ALL	SURF.	HUMI.	TOTAL AREA	1 METER DEEP AREA 0-ALL	SURF.	HUMI.
639	60.0	42.2	42.2	40.5	1.7	62	38	1.72	1.60	1.54	0.06	3.3	3.3	3.2	8.0
641	34.0	13.0	20.8	9.0	11.8	151	44	1.45	0.91	0.40	0.52	5.2	4.7	3.0	6.0
642	59.0	35.1	35.1	7.6	27.6	86	50	1.94	1.76	0.38	1.38	4.9	4.9	3.0	5.4
643	50.0	27.0	27.0	10.0	17.0	13	10	0.28	0.27	0.10	0.17	4.5	4.5	3.3	5.2
644	60.0	47.3	47.3	32.0	15.3	22	16	0.79	0.76	0.51	0.25	4.0	4.0	3.1	6.0
645	75.0	37.7	44.4	24.2	20.2	51	25	1.24	1.11	0.60	0.50	4.4	4.4	4.2	4.7
646	57.0	23.3	24.2	9.8	14.4	326	144	4.39	3.48	1.41	2.07	5.0	4.9	3.9	5.6
648	21.0	16.4	16.4	5.2	11.2	63	31	0.67	0.51	0.16	0.35	4.8	4.8	2.5	5.9
649	59.0	28.4	28.4	6.2	22.2	32	22	0.67	0.62	0.14	0.49	5.2	5.2	2.8	5.8
650	60.0	23.8	27.3	5.9	21.5	259	102	3.57	2.79	0.60	2.19	5.4	5.4	3.6	5.9
651	46.0	20.8	22.1	5.0	17.1	95	44	1.23	0.97	0.22	0.76	5.2	5.2	3.7	5.7
652	80.0	26.9	29.8	13.0	16.7	717	364	12.60	10.84	4.75	6.09	4.5	4.5	3.7	5.1
652 A	35.0	22.8	26.8	12.0	14.8	82	34	1.15	0.91	0.41	0.50	4.0	3.9	3.3	4.5
653	80.0	30.7	35.9	23.0	12.9	190	90	3.73	3.23	2.07	1.16	4.6	4.5	3.5	6.3
654	39.0	20.3	20.3	7.7	12.7	132	49	1.41	1.00	0.38	0.62	5.4	5.4	3.5	6.5
655	70.0	34.7	37.3	32.0	5.3	150	100	3.98	3.73	3.20	0.53	3.7	3.7	3.3	5.9
656	80.0	25.4	25.4	18.8	6.6	243	157	4.42	3.99	2.96	1.03	3.7	3.7	3.2	5.0
657	68.0	50.6	50.6	38.6	12.0	57	41	2.15	2.07	1.58	0.49	3.6	3.6	3.2	4.8
658	58.0	32.0	32.0	32.0	0.0	59	39	1.35	1.25	1.25	0.00	3.7	3.7	3.7	0.0
660	57.0	31.2	32.9	17.3	15.6	169	126	5.49	4.14	2.18	1.96	4.4	4.4	3.1	5.8

TABLE: P1: AREA AND VOLUME SUMMARY

BOGNO	MAXIMUM DEPTH (DM)	AVERAGE DEPTH (DM)				AREA (HA)		VOLUME (MCM)				AVG. DEGREE OF HUM.			
			1 METER DEEP AREA						1 METER DEEP AREA				1 METER DEEP AREA		
		TOTAL AREA	0-ALL	SURF.	HUMI.	TOTAL	>=1M DEPTH	TOTAL AREA	0-ALL	SURF.	HUMI.	TOTAL AREA	0-ALL	SURF.	HUMI.
661	90.0	33.3	35.3	16.7	18.7	142	90	3.44	3.18	1.50	1.68	4.3	4.3	3.3	5.1
662	39.0	32.3	32.3	22.0	10.3	24	16	0.56	0.52	0.35	0.17	3.9	3.9	3.5	4.7
664	51.0	23.3	23.3	14.1	9.2	134	61	1.79	1.42	0.86	0.56	3.8	3.8	2.5	5.9
667	49.0	20.6	20.6	10.4	10.2	112	55	1.42	1.13	0.57	0.56	3.9	3.9	3.0	4.8
667 A	38.0	17.0	17.0	12.8	4.3	37	16	0.38	0.27	0.20	0.07	4.2	4.2	2.8	8.1
667 B	30.0	15.8	15.8	15.8	0.0	44	15	0.38	0.24	0.24	0.00	3.7	3.7	3.7	0.0
667 C	40.0	28.0	28.0	15.8	12.3	49	25	0.82	0.70	0.39	0.31	4.6	4.6	3.1	6.5
668	56.0	25.0	25.0	16.8	8.3	38	27	0.73	0.67	0.45	0.22	4.3	4.3	3.5	5.9
669	60.0	27.7	27.7	22.8	4.8	59	21	0.77	0.58	0.48	0.10	3.9	3.9	3.3	6.7
670	60.0	17.4	20.5	12.5	8.0	68	5	0.42	0.10	0.06	0.04	4.4	4.5	3.7	5.7
672 A	39.0	24.1	24.1	14.6	9.6	69	36	1.03	0.87	0.52	0.34	3.9	3.9	2.9	5.3
672 B	45.0	29.5	29.5	24.8	4.7	148	60	2.21	1.77	1.49	0.28	3.6	3.6	3.3	5.1
678	39.0	31.0	31.0	23.4	7.6	39	31	1.00	0.96	0.73	0.24	3.8	3.8	2.9	6.6
679	22.0	15.0	15.0	10.0	5.0	88	31	0.75	0.46	0.31	0.15	4.0	4.0	3.0	6.0
680	33.0	22.0	22.0	9.0	13.0	26	22	0.50	0.48	0.20	0.29	5.1	5.1	3.5	6.1
681	60.0	41.0	41.0	36.9	4.1	34	22	0.96	0.90	0.81	0.09	3.5	3.5	3.2	6.1
684	50.0	25.9	25.9	20.3	5.5	180	100	2.99	2.59	2.03	0.55	3.5	3.5	2.8	6.2
684 A	77.0	38.9	38.9	21.7	17.2	95	32	1.56	1.25	0.70	0.55	4.3	4.3	3.4	5.4
688	14.0	9.5	14.0	14.0	0.0	340	6	1.75	0.08	0.08	0.00	4.0	4.0	4.0	0.0
689 A	5.0	4.5	0.0	0.0	0.0	39	0	0.19	0.00	0.00	0.00	4.9	0.0	0.0	0.0

TABLE: P1: AREA AND VOLUME SUMMARY

		AVERAGE DEPTH (DM)				AREA (HA)		VOLUME (MCM)				AVG. DEGREE OF HUM.			
BOGNO	MAXIMUM DEPTH (DM)	TOTAL AREA	1 METER DEEP AREA O-ALL	SURF.	HUMI.	TOTAL	>=1M DEPTH	TOTAL AREA	1 METER DEEP AREA O-ALL	SURF.	HUMI.	TOTAL AREA	1 METER DEEP AREA O-ALL	SURF.	HUMI.
690	27.0	17.8	17.8	6.5	11.3	110	49	1.17	0.87	0.32	0.55	4.7	4.7	3.8	5.3
691	60.0	17.5	17.5	0.0	17.5	105	34	0.95	0.59	0.00	0.59	5.7	5.7	0.0	5.7
692	43.0	10.5	17.6	12.6	5.0	282	60	2.17	1.06	0.76	0.30	3.7	3.8	3.4	4.6
693	57.0	4.2	13.0	0.0	13.0	96	8	0.54	0.10	0.00	0.10	6.0	7.0	0.0	7.0
700	21.0	13.2	17.3	1.3	16.0	101	7	0.59	0.12	0.01	0.11	5.6	5.5	4.0	5.6
703	39.0	28.3	28.3	9.3	19.0	39	26	0.80	0.73	0.24	0.49	4.6	4.6	3.6	5.1
703 A	13.0	8.3	11.0	2.0	9.0	66	2	0.34	0.02	0.00	0.02	5.5	6.4	3.0	7.1
707	66.0	28.8	30.8	9.4	21.4	573	295	10.47	9.08	2.78	6.30	5.0	5.0	3.5	5.7
707 A	25.0	12.5	16.3	5.7	10.7	117	25	0.87	0.41	0.14	0.27	4.5	4.5	4.0	4.8
708	35.0	13.1	17.5	11.2	6.4	269	53	2.01	0.93	0.59	0.34	3.9	3.9	2.8	5.8
708 A	60.0	29.2	31.6	26.0	6.6	85	44	1.59	1.39	1.10	0.29	4.3	4.2	3.8	5.6
709	40.0	23.5	23.5	4.1	19.4	170	78	2.29	1.83	0.32	1.51	6.2	6.2	2.9	6.9
710	53.0	32.9	32.9	10.0	22.9	101	66	2.34	2.17	0.66	1.51	5.2	5.2	3.4	5.9
711	40.0	12.2	14.7	0.0	14.7	50	15	0.39	0.22	0.00	0.22	6.1	5.9	0.0	5.9
712	45.0	24.3	24.3	6.7	17.7	106	50	1.50	1.22	0.33	0.88	5.3	5.3	3.1	6.1
713	85.0	36.6	38.0	14.3	23.7	509	284	11.92	10.79	4.07	6.72	4.8	4.8	3.5	5.5
716	55.0	31.8	31.8	7.3	24.5	174	119	4.05	3.78	0.86	2.92	5.0	5.0	3.2	5.5
717	11.0	5.4	0.0	0.0	0.0	163	0	0.81	0.00	0.00	0.00	6.8	0.0	0.0	0.0
717 A	39.0	20.8	20.8	8.2	12.6	63	23	0.68	0.48	0.19	0.29	4.0	4.0	3.3	4.4
718	39.0	22.1	26.8	10.2	16.7	171	48	1.90	1.29	0.49	0.80	4.8	4.9	3.4	5.8

TABLE: P1: AREA AND VOLUME SUMMARY

BOGNO	MAXIMUM DEPTH (DM)	AVERAGE DEPTH (DM)				AREA (HA)		VOLUME (MCM)				AVG. DEGREE OF HUM.			
		TOTAL AREA	1 METER DEEP AREA O-ALL	SURF.	HUMI.	TOTAL	>=1M DEPTH	TOTAL AREA	1 METER DEEP AREA O-ALL	SURF.	HUMI.	TOTAL AREA	1 METER DEEP AREA O-ALL	SURF.	HUMI.
718 A	29.0	15.6	22.8	3.3	19.5	28	12	0.35	0.27	0.04	0.23	5.4	5.5	3.7	5.8
722	52.0	27.0	27.0	9.5	17.5	160	74	2.43	2.00	0.70	1.29	4.2	4.2	3.3	4.7
723	45.0	27.0	27.0	8.4	18.6	314	72	3.15	1.94	0.60	1.34	4.3	4.3	3.0	4.8
723 A	59.0	23.8	23.8	4.4	19.4	39	28	0.72	0.67	0.12	0.54	4.7	4.7	3.7	4.9
723 B	50.0	26.2	26.2	10.6	15.6	63	37	1.10	0.97	0.39	0.58	4.2	4.2	3.5	4.7
723 C	39.0	24.5	24.5	21.0	3.5	40	23	0.65	0.56	0.48	0.08	3.5	3.5	3.3	4.9
724	90.0	41.8	41.8	18.8	23.0	86	62	2.71	2.59	1.17	1.43	4.0	4.0	3.3	4.6
725	27.0	16.2	16.2	7.2	9.0	65	31	0.67	0.50	0.22	0.28	5.1	5.1	2.7	7.1
726	39.0	19.8	21.9	6.9	15.0	55	13	0.49	0.28	0.09	0.19	4.8	4.7	3.6	5.3
727	29.0	18.0	18.0	4.0	14.0	46	19	0.48	0.34	0.08	0.27	4.7	4.7	3.1	5.2
728	57.0	24.8	24.8	13.6	11.2	150	103	2.79	2.56	1.40	1.16	4.5	4.5	3.6	5.7
729	23.0	17.7	19.2	2.2	17.0	93	49	1.16	0.94	0.11	0.83	4.9	4.8	4.0	4.9
729 A	58.0	27.0	32.5	21.5	11.0	94	53	1.93	1.72	1.14	0.58	4.2	4.2	3.8	4.9
731	94.0	34.8	36.3	18.0	18.3	306	114	5.09	4.13	2.05	2.08	4.4	4.4	3.5	5.3
733	62.0	19.6	21.2	1.5	19.7	228	88	2.57	1.87	0.13	1.73	5.3	5.3	2.9	5.4
736	70.0	24.1	26.4	11.0	15.4	250	144	4.34	3.81	1.59	2.22	4.5	4.5	3.5	5.2
737	70.0	32.2	33.7	11.9	21.8	400	213	8.11	7.17	2.54	4.64	4.9	4.9	3.6	5.7
738	23.0	18.3	18.3	9.3	9.0	48	18	0.48	0.33	0.17	0.16	4.8	4.8	2.9	6.7
738 A	45.0	34.5	34.5	10.8	23.7	230	77	3.42	2.66	0.83	1.82	5.2	5.2	3.0	6.1
740	56.0	30.2	30.2	11.4	18.9	105	59	2.01	1.78	0.67	1.11	4.5	4.5	3.6	5.1

TABLE: P1: AREA AND VOLUME SUMMARY

BOGNO	MAXIMUM DEPTH (DM)	AVERAGE DEPTH (DM) TOTAL AREA	AVERAGE DEPTH (DM) 1 METER DEEP AREA O-ALL	AVERAGE DEPTH (DM) 1 METER DEEP AREA SURF.	AVERAGE DEPTH (DM) 1 METER DEEP AREA HUMI.	AREA (HA) TOTAL	AREA (HA) >=1M DEPTH	VOLUME (MCM) TOTAL AREA	VOLUME (MCM) 1 METER DEEP AREA O-ALL	VOLUME (MCM) 1 METER DEEP AREA SURF.	VOLUME (MCM) 1 METER DEEP AREA HUMI.	AVG. DEGREE OF HUM. TOTAL AREA	AVG. DEGREE OF HUM. 1 METER DEEP AREA O-ALL	AVG. DEGREE OF HUM. 1 METER DEEP AREA SURF.	AVG. DEGREE OF HUM. 1 METER DEEP AREA HUMI.
742	80.0	24.0	24.0	2.3	21.8	76	54	1.41	1.30	0.12	1.17	5.8	5.8	3.9	6.0
744	54.0	29.7	31.4	11.7	19.8	217	115	4.12	3.61	1.34	2.27	5.3	5.3	3.4	6.4
744 A	43.0	25.7	25.7	6.7	19.0	154	86	2.55	2.21	0.58	1.63	4.5	4.5	2.9	5.1
745	37.0	24.7	24.7	0.7	24.0	85	58	1.57	1.43	0.04	1.39	6.1	6.1	4.0	6.2
749	31.0	16.9	19.3	12.7	6.7	225	110	2.70	2.13	1.39	0.73	4.8	4.8	3.7	7.0
750	65.0	35.9	35.9	11.6	24.3	183	107	4.22	3.84	1.24	2.59	4.9	4.9	3.0	5.8
751	72.0	32.3	35.3	4.4	30.9	185	130	4.86	4.58	0.57	4.01	5.1	5.1	4.1	5.2
753	29.0	14.6	17.5	6.4	11.1	118	23	0.88	0.40	0.15	0.25	4.8	5.0	3.1	6.2
758	54.0	30.4	30.4	18.8	11.6	108	59	2.04	1.79	1.11	0.68	4.1	4.1	3.6	4.8
758 A	45.0	21.1	21.5	6.8	14.8	342	99	3.35	2.13	0.67	1.46	5.0	4.9	3.3	5.7
759	55.0	33.4	33.4	13.8	19.6	87	62	2.20	2.07	0.86	1.22	4.4	4.4	3.4	5.2
762	80.0	30.0	30.0	20.5	9.5	71	38	1.30	1.14	0.78	0.36	3.8	3.8	3.4	4.6
763	65.0	31.5	31.5	11.5	20.0	33	21	0.72	0.66	0.24	0.42	4.5	4.5	3.7	4.9
765	70.0	39.1	39.9	19.1	20.8	204	166	6.82	6.63	3.17	3.46	4.3	4.3	3.5	5.0
766 A	32.0	22.7	24.5	3.5	21.0	189	108	3.05	2.65	0.38	2.27	6.2	6.3	2.8	6.8
767	70.0	22.0	23.0	3.9	19.0	858	631	15.64	14.50	2.49	12.01	5.8	5.8	3.2	6.3
767 A	60.0	23.9	27.0	3.0	24.0	52	38	1.10	1.03	0.11	0.91	5.6	5.6	3.1	5.9
767 B	10.0	8.8	10.0	3.0	7.0	110	14	0.62	0.14	0.04	0.10	5.8	6.0	4.0	6.9
768	24.0	15.7	15.7	3.0	12.7	134	59	1.30	0.93	0.18	0.75	5.5	5.5	2.5	6.3
769	22.0	14.8	16.3	6.8	9.5	113	56	1.19	0.91	0.38	0.53	4.8	4.9	2.4	6.6

TABLE: P1: AREA AND VOLUME SUMMARY

		AVERAGE DEPTH (DM)				AREA (HA)		VOLUME (MCM)				AVG. DEGREE OF HUM.			
			1 METER DEEP AREA						1 METER DEEP AREA				1 METER DEEP AREA		
BOGNO	MAXIMUM DEPTH (DM)	TOTAL AREA	O-ALL	SURF.	HUMI.	TOTAL	>=1M DEPTH	TOTAL AREA	O-ALL	SURF.	HUMI.	TOTAL AREA	O-ALL	SURF.	HUMI.
770	58.0	27.1	27.6	7.6	20.0	930	694	20.32	19.14	5.28	13.86	5.0	5.0	3.3	5.6
770 A	28.0	20.8	20.8	2.5	18.3	63	19	0.61	0.39	0.05	0.35	5.4	5.4	3.1	5.8
771	28.0	21.3	21.3	3.8	17.6	137	74	1.88	1.58	0.28	1.30	5.4	5.4	3.1	5.9
772	59.0	26.6	26.6	8.2	18.3	207	120	3.62	3.19	0.99	2.20	4.8	4.8	2.4	5.9
772 A	60.0	20.7	22.8	11.5	11.3	136	53	1.63	1.21	0.61	0.60	4.6	4.7	3.3	6.1
773	85.0	35.1	36.6	19.5	17.2	385	238	9.46	8.72	4.64	4.08	4.2	4.3	3.2	5.5
774	42.0	26.8	26.8	1.8	25.0	154	91	2.76	2.44	0.17	2.27	5.6	5.6	2.4	5.9
775	38.0	18.2	18.8	1.9	16.9	172	114	2.44	2.15	0.22	1.93	5.3	5.3	3.3	5.5
775 A	60.0	31.0	31.0	5.2	25.8	83	61	2.00	1.89	0.32	1.57	5.4	5.4	3.6	5.8
776	43.0	24.5	24.5	1.8	22.7	126	90	2.38	2.20	0.16	2.04	5.4	5.4	3.1	5.6
778	59.0	27.5	31.8	13.7	18.1	563	256	9.68	8.14	3.52	4.63	4.3	4.4	2.8	5.5
779	26.0	14.9	14.9	3.9	11.0	100	49	0.98	0.73	0.19	0.54	4.7	4.7	3.7	5.1
779 A	43.0	23.2	23.2	3.9	19.3	253	161	4.19	3.73	0.63	3.10	5.8	5.8	3.0	6.4
781	47.0	27.5	27.5	13.8	13.7	183	41	1.84	1.13	0.57	0.56	3.7	3.7	3.4	4.0
782	15.0	8.2	13.0	6.5	6.5	193	9	1.04	0.12	0.06	0.06	4.6	4.5	3.7	5.4
783	99.0	39.0	39.0	24.1	14.9	209	84	3.90	3.28	2.03	1.25	4.9	4.9	3.6	7.2
784	42.0	21.5	25.3	8.3	17.0	641	331	9.91	8.36	2.73	5.63	4.8	4.8	3.6	5.4
784 A	58.0	25.2	25.2	2.6	22.6	166	61	2.06	1.54	0.16	1.38	4.9	4.9	2.8	5.1
785	69.0	30.2	31.8	9.1	22.7	387	274	9.27	8.71	2.49	6.21	4.9	4.9	3.4	5.4
785 A	75.0	42.9	44.5	20.6	24.0	574	426	19.71	18.97	8.76	10.21	4.4	4.4	3.3	5.3

TABLE: P1: AREA AND VOLUME SUMMARY

		AVERAGE DEPTH (DM)				AREA (HA)		VOLUME (MCM)				AVG. DEGREE OF HUM.			
			1 METER DEEP AREA						1 METER DEEP AREA				1 METER DEEP AREA		
BOGNO	MAXIMUM DEPTH (DM)	TOTAL AREA	O-ALL	SURF.	HUMI.	TOTAL	>=1M DEPTH	TOTAL AREA	O-ALL	SURF.	HUMI.	TOTAL AREA	O-ALL	SURF.	HUMI.
785 B	48.0	24.2	26.6	9.7	17.0	238	175	4.98	4.66	1.69	2.97	5.1	5.1	3.1	6.3
786	50.0	27.2	27.2	2.7	24.5	161	79	2.56	2.15	0.21	1.94	5.2	5.2	3.5	5.4
790	80.0	27.7	33.6	14.5	19.0	378	140	6.89	4.70	2.04	2.67	4.6	4.6	3.5	5.4
791	73.0	44.2	45.2	27.9	17.3	176	139	6.46	6.28	3.87	2.40	4.3	4.3	3.5	5.7
791 A	38.0	22.3	22.3	1.0	21.3	55	27	0.74	0.60	0.03	0.58	5.6	5.6	3.3	5.7
792	80.0	29.1	31.2	16.5	14.7	426	272	9.26	8.49	4.50	3.99	4.4	4.4	3.5	5.4
793 A	44.0	27.7	27.7	9.3	18.3	112	67	2.08	1.85	0.63	1.23	5.4	5.4	3.5	6.4
794	18.0	13.8	13.8	1.0	12.8	47	11	0.33	0.15	0.01	0.14	6.7	6.7	4.0	6.9
794 A	23.0	15.5	17.7	1.7	16.0	32	8	0.26	0.14	0.01	0.13	6.2	6.4	4.0	6.7
795	75.0	38.2	41.3	27.7	13.6	174	130	5.59	5.37	3.61	1.77	4.0	4.0	3.2	5.8
795 A	45.0	27.9	27.9	4.6	23.3	99	64	1.96	1.79	0.30	1.49	5.6	5.6	2.9	6.1
796	15.0	8.5	10.0	10.0	0.0	342	52	1.97	0.52	0.52	0.00	3.6	3.6	3.6	0.0
797	60.0	25.4	25.4	12.0	13.4	106	73	2.02	1.85	0.88	0.98	4.2	4.2	2.8	5.5
798	60.0	33.3	33.3	6.7	26.7	73	51	1.81	1.70	0.34	1.36	5.0	5.0	2.6	5.6
798 A	60.0	25.0	25.0	6.4	18.6	143	90	2.51	2.25	0.58	1.67	5.4	5.4	2.9	6.2
799	19.0	13.8	13.8	1.5	12.3	209	23	1.25	0.32	0.03	0.28	6.1	6.1	2.0	6.6
802	75.0	34.0	40.5	14.8	25.8	78	52	2.24	2.11	0.77	1.34	4.7	4.7	3.7	5.2
803	69.0	30.5	31.0	12.6	18.4	342	251	8.25	7.79	3.16	4.63	4.5	4.5	3.5	5.2
804	60.0	25.3	28.3	16.1	12.1	111	72	2.23	2.03	1.16	0.87	4.2	4.3	3.4	5.5
804 A	34.0	17.0	21.0	11.7	9.3	28	11	0.32	0.23	0.13	0.10	3.8	3.8	2.8	5.1

TABLE: P1: AREA AND VOLUME SUMMARY

BOGNO	MAXIMUM DEPTH (DM)	AVERAGE DEPTH (DM)				AREA (HA)		VOLUME (MCM)				AVG. DEGREE OF HUM.			
			1 METER DEEP AREA						1 METER DEEP AREA				1 METER DEEP AREA		
		TOTAL AREA	0-ALL	SURF.	HUMI.	TOTAL	>=1M DEPTH	TOTAL AREA	0-ALL	SURF.	HUMI.	TOTAL AREA	0-ALL	SURF.	HUMI.
805	40.0	11.0	20.2	12.4	7.8	5565	264	31.83	5.33	3.28	2.05	4.2	4.2	3.4	5.5
809	16.0	10.8	11.3	7.3	4.0	111	17	0.66	0.19	0.12	0.07	4.8	5.0	3.7	7.3
809 A	58.0	29.7	32.6	14.1	18.5	108	55	2.06	1.79	0.78	1.02	4.5	4.5	3.1	5.5
809 B	60.0	26.9	26.9	6.7	20.2	129	65	2.07	1.75	0.44	1.31	5.1	5.1	3.1	5.8
811	55.0	20.5	23.4	9.0	14.4	335	133	4.12	3.11	1.20	1.91	4.8	4.8	3.6	5.5
811 A	40.0	16.1	19.9	5.2	14.7	281	40	2.00	0.80	0.21	0.59	5.0	5.0	3.8	5.5
812	74.0	39.1	39.1	12.0	27.1	183	86	3.85	3.37	1.03	2.33	5.0	5.0	3.7	5.6
813	40.0	21.5	22.1	5.2	17.0	407	201	5.48	4.45	1.04	3.41	5.2	5.2	2.9	5.9
814	38.0	20.6	20.6	9.4	11.2	147	38	1.33	0.78	0.36	0.43	5.3	5.3	3.3	6.9
814 A	60.0	29.0	29.0	7.4	21.6	91	60	1.89	1.74	0.45	1.29	5.0	5.0	2.9	5.8
815	37.0	17.8	18.6	3.2	15.4	377	156	4.00	2.89	0.50	2.40	5.5	5.5	2.7	6.1
816	60.0	24.2	26.1	6.0	20.1	173	123	3.46	3.21	0.74	2.47	4.9	5.0	3.2	5.5
816 A	17.0	8.2	13.5	3.5	10.0	109	17	0.69	0.23	0.06	0.17	5.0	5.3	3.1	6.0
817	56.0	27.0	27.0	5.8	21.2	180	117	3.47	3.16	0.68	2.48	5.2	5.2	2.9	5.9
817 A	33.0	18.4	19.4	4.0	15.4	169	88	2.12	1.71	0.35	1.36	5.5	5.5	2.8	6.2
820	60.0	20.8	24.6	9.8	15.0	61	26	0.82	0.64	0.25	0.39	4.2	4.1	3.0	4.8
821	75.0	38.8	38.8	29.8	9.0	54	36	1.49	1.40	1.07	0.32	4.4	4.4	3.1	8.3
822	60.0	17.7	21.7	8.7	13.0	90	32	0.98	0.59	0.28	0.42	5.0	5.0	3.4	6.1
823	38.0	12.4	16.3	2.0	14.3	33	11	0.29	0.18	0.02	0.16	5.6	5.7	3.0	6.1
828	52.0	26.5	26.6	4.7	21.9	121	78	2.29	2.07	0.37	1.70	5.2	5.2	2.5	5.8

TABLE: P1: AREA AND VOLUME SUMMARY

BOGNO	MAXIMUM DEPTH (DM)	AVERAGE DEPTH (DM)				AREA (HA)		VOLUME (MCM)				AVG. DEGREE OF HUM.			
		TOTAL AREA	1 METER DEEP AREA O-ALL	SURF.	HUMI.	TOTAL	>=1M DEPTH	TOTAL AREA	1 METER DEEP AREA O-ALL	SURF.	HUMI.	TOTAL AREA	1 METER DEEP AREA O-ALL	SURF.	HUMI.
832	40.0	20.0	20.0	4.3	15.8	89	66	0.64	0.48	0.10	0.38	4.9	4.9	2.9	5.4
834	60.0	26.5	26.5	14.2	12.4	160	123	3.45	3.26	1.74	1.52	4.2	4.2	3.1	5.5
835	41.0	20.3	20.3	19.0	1.3	57	24	1.48	1.34	1.26	0.08	3.4	3.4	3.2	6.0
836	60.0	23.2	23.2	3.2	19.9	166	116	2.94	2.69	0.37	2.31	5.0	5.0	3.1	5.3
836 A	35.0	17.3	17.3	5.7	11.7	48	27	0.57	0.47	0.15	0.31	5.4	5.4	2.9	6.6
837	20.0	16.0	16.0	4.3	11.7	37	16	0.36	0.26	0.07	0.19	5.1	5.1	2.4	6.1
838	35.0	20.2	20.2	6.7	13.5	99	44	1.16	0.89	0.29	0.59	5.1	5.1	3.0	6.1
841	45.0	26.0	28.7	13.1	15.6	139	94	2.92	2.70	1.23	1.46	4.9	4.9	3.0	6.5
841 A	57.0	17.0	18.3	1.8	16.5	50	26	0.60	0.48	0.05	0.43	6.0	5.9	3.0	5.3
842	34.0	23.3	23.3	6.9	16.4	115	50	1.49	1.16	0.34	0.82	5.1	5.1	2.5	6.2
843	30.0	19.7	25.5	5.8	19.8	128	38	1.42	0.97	0.22	0.76	5.7	5.7	3.4	6.4
844	33.0	19.7	19.7	6.5	13.2	72	29	0.79	0.57	0.19	0.38	5.2	5.2	3.0	6.3
846	55.0	22.3	23.3	15.0	8.3	437	373	9.01	8.69	5.59	3.09	4.3	4.3	3.1	6.5
846 A	34.0	26.0	26.0	7.5	18.5	26	16	0.47	0.42	0.12	0.30	5.2	5.2	3.0	6.1
846 B	24.0	18.0	18.0	4.3	13.8	26	12	0.29	0.22	0.05	0.16	5.7	5.7	2.8	6.6
846 C	25.0	17.3	17.3	3.8	13.5	56	16	0.48	0.28	0.06	0.22	5.9	5.9	2.9	6.7
849	53.0	20.5	22.0	8.6	13.4	177	84	2.31	1.85	0.72	1.13	5.1	5.1	3.6	6.0
849 A	8.0	3.0	0.0	0.0	0.0	81	0	0.40	0.00	0.00	0.00	4.7	0.0	0.0	0.0
850	52.0	35.6	35.6	16.8	18.9	67	45	1.71	1.60	0.75	0.85	4.8	4.8	3.2	6.2
851	52.0	29.9	34.9	20.8	14.1	100	70	2.59·	2.44	1.45	0.99	4.5	4.5	3.2	6.4

TABLE: P1: AREA AND VOLUME SUMMARY

		AVERAGE DEPTH (DM)				AREA (HA)		VOLUME (MCM)				AVG. DEGREE OF HUM.			
			1 METER DEEP AREA						1 METER DEEP AREA				1 METER DEEP AREA		
DOGNO	MAXIMUM DEPTH (DM)	TOTAL AREA	O-ALL	SURF.	HUMI.	TOTAL	>=1M DEPTH	TOTAL AREA	O-ALL	SURF.	HUMI.	TOTAL AREA	O-ALL	SURF.	HUMI.
852	41.0	25.2	27.9	16.2	11.6	120	71	2.22	1 98	1.15	0.89	4.4	4.4	2.9	6.6
855	39.0	22.4	22.4	7.8	14.6	53	24	0.68	0.54	0.19	0.35	5.0	5.0	2.7	6 2
857	58.0	38.9	43.8	34.7	9.2	62	45	2.06	1.97	1.56	0.41	3.6	3.6	2.8	6.4
858	16.0	11.1	11.9	9.0	2.9	70	17	1.15	1.39	1.05	0.34	4.0	4.1	3.2	6.8
859	34.0	18.9	18.9	12.3	6.6	34	19	0.43	0.36	0.23	0.12	4.5	4.5	3.1	7.1
860	28.0	17.9	17.9	11.9	6.0	58	36	0.75	0.64	0.43	0.22	4.5	4.5	3.2	7.1
861	23.0	16.2	16.2	14.6	1.6	45	17	0.42	0.28	0.25	0.03	3.3	3.3	2.9	7.0
862	48.0	22.5	25.6	20.3	5.2	131	68	2.05	1.74	1.38	0.36	3.9	3.7	3.0	6.4
873	43.0	23.7	27.8	23.8	4.0	34	20	0.63	0.56	0.48	0.08	3.0	3.1	2.6	5.8
873 A	53.0	23.7	23.7	17.8	5.8	124	57	1.68	1.35	1.02	0.33	3.8	3.8	3.0	6.2
874	39.0	26.7	26.7	23.1	3.6	41	29	0.83	0.77	0.67	0.10	3.4	3.4	2.9	6.5
875	45.0	36.5	36.5	26.3	10.3	12	9	0.34	0.33	0.24	0.09	3.9	3.9	3.1	6.0
876	47.0	27.0	34.0	31.3	2.7	15	10	0.36	0.34	0.31	0.03	3.5	3.4	3.1	6.8
877	33.0	19.0	19.0	10.0	9.0	22	6	0.19	0.11	0.06	0.05	5.1	5.1	3.2	7.2
878	9.0	5.3	0.0	0.0	0.0	8	0	0.04	0.00	0.00	0.00	4.4	0.0	0.0	0.0
879	51.0	23.7	25.8	21.2	4.6	87	51	1.50	1.32	1.08	0.24	3.6	3.6	3.0	6.3
830	30.0	23.0	23.5	20.1	3.4	216	145	3.76	3.41	2.91	0.50	3.0	3.0	2.7	4.4
881	50.0	21.7	25.3	21.5	3.9	236	156	4.35	3.95	3.35	0.60	3.0	3.0	2.5	5.6
882	32.0	26.6	26.6	24.3	2.3	88	65	1.84	1.73	1.58	0.15	2.8	2.8	2.5	5.5
883	40.0	24.7	26.1	24.8	1.3	246	217	5.81	5.66	5.38	0.28	2.7	2.7	2.6	5.5

TABLE: P1: AREA AND VOLUME SUMMARY

BOGNO	MAXIMUM DEPTH (DM)	AVERAGE DEPTH (DM)				AREA (HA)		VOLUME (MCM)				AVG. DEGREE OF HUM.			
		TOTAL AREA	1 METER DEEP AREA			TOTAL	>=1M DEPTH	TOTAL AREA	1 METER DEEP AREA			TOTAL AREA	1 METER DEEP AREA		
			O-ALL	SURF.	HUMI.				O-ALL	SURF.	HUMI.		O-ALL	SURF.	HUMI.
884	31.0	21.5	21.9	18.7	3.2	551	312	8.03	6.83	5.84	0.99	3.4	3.4	3.2	4.5
885	33.0	31.3	31.3	31.0	0.3	28	20	0.88	0.63	0.62	0.00	3.0	3.0	3.0	5.0
886	33.0	30.3	30.3	29.9	0.4	59	46	1.46	1.39	1.37	0.02	2.5	2.5	2.4	5.7
887	60.0	20.4	22.8	18.7	4.1	265	118	3.42	2.69	2.21	0.48	3.3	3.3	2.7	6.2
887 A	44.0	29.0	30.7	29.5	1.2	86	80	2.49	2.46	2.36	0.09	3.0	3.0	2.9	5.3
888	38.0	15.0	16.3	16.2	0.2	194	71	1.77	1.16	1.15	0.01	2.5	2.5	2.5	6.0
888 A	42.0	18.3	18.3	18.0	0.3	128	68	1.55	1.25	1.22	0.02	2.6	2.6	2.6	6.0
891	80.0	39.5	39.5	25.9	13.6	474	317	13.31	12.52	8.22	4.30	3.8	3.8	3.2	4.9
894	38.0	30.0	30.0	22.5	7.5	32	23	0.73	0.69	0.52	0.17	3.4	3.4	3.4	3.7
894 A	63.0	40.8	40.8	18.2	22.6	80	49	2.15	2.00	0.89	1.11	4.1	4.1	3.5	4.5
900	45.0	24.8	28.0	10.6	17.4	55	33	1.03	0.92	0.35	0.57	5.0	5.0	3.1	6.2
901	42.0	24.0	24.0	13.3	10.7	32	19	0.52	0.46	0.25	0.20	4.5	4.5	2.9	6.5
902	51.0	30.0	30.0	8.8	21.3	33	22	0.71	0.66	0.19	0.47	4.3	4.3	3.0	4.9
903	21.0	12.6	16.3	6.0	10.3	36	6	0.25	0.10	0.04	0.06	4.8	4.7	2.3	6.1
904	19.0	12.0	14.3	5.0	9.3	33	4	0.20	0.06	0.02	0.04	4.6	4.8	2.4	6.1
905	32.0	20.2	22.4	7.0	15.4	35	14	0.42	0.31	0.10	0.22	4.6	4.6	2.5	5.6
906	60.0	33.3	34.6	19.0	15.6	306	255	9.08	8.82	4.86	3.97	4.1	4.0	3.3	5.0
907	54.0	24.8	29.0	14.5	14.5	43	29	0.91	0.84	0.42	0.42	4.0	3.9	3.0	4.8
911	53.0	22.8	22.8	12.8	10.0	73	43	1.13	0.98	0.55	0.43	4.2	4.2	3.4	5.1
912	15.0	14.5	14.5	4.0	10.5	26	8	0.21	0.12	0.03	0.08	4.5	4.5	3.0	5.0

TABLE: P1: AREA AND VOLUME SUMMARY

BOGNO	MAXIMUM DEPTH (DM)	AVERAGE DEPTH (DM)				AREA (HA)		VOLUME (MCM)				AVG. DEGREE OF HUM.			
			1 METER DEEP AREA						1 METER DEEP AREA				1 METER DEEP AREA		
		TOTAL AREA	O-ALL	SURF.	HUMI.	TOTAL	>=1M DEPTH	TOTAL AREA	O-ALL	SURF.	HUMI.	TOTAL AREA	O-ALL	SURF.	HUMI.
913	19.0	8.3	10.0	3.0	7.0	50	0	0.25	0.00	0.00	0.00	6.0	5.3	4.0	5.9
914	29.0	16.8	19.3	9.8	9.5	41	18	0.46	0.35	0.18	0.17	4.2	4.3	2.7	5.9
915	20.0	15.0	17.0	5.7	11.3	45	11	0.36	0.19	0.06	0.12	5.5	5.7	2.2	7.4
919	29.0	19.6	19.6	11.4	8.2	37	16	0.42	0.31	0.18	0.13	4.7	4.7	3.1	6.8
920	45.0	24.2	27.2	11.2	16.0	30	18	0.55	0.49	0.20	0.29	4.9	4.9	3.2	6.2
921	30.0	15.8	17.4	9.6	7.8	77	28	0.73	0.49	0.27	0.22	4.3	4.4	2.5	6.7
923	25.0	20.8	20.8	15.0	5.8	33	18	0.45	0.37	0.27	0.10	3.6	3.6	2.6	6.3
924	30.0	18.3	18.3	8.0	10.3	35	15	0.37	0.27	0.12	0.15	5.1	5.1	2.8	6.8
925	27.0	19.5	19.5	7.0	12.5	22	13	0.30	0.25	0.09	0.16	4.9	4.9	2.7	6.1
926	23.0	17.8	17.8	5.8	12.0	48	22	0.52	0.39	0.13	0.26	5.0	5.0	2.6	5.2
927	35.0	28.0	26.0	20.3	7.8	52	31	0.97	0.87	0.63	0.24	4.3	4.3	3.6	6.1
928	35.0	23.0	23.0	5.3	17.7	25	17	0.43	0.39	0.09	0.30	5.7	5.7	2.8	6.5
929	51.0	39.0	39.0	22.8	16.2	56	42	1.71	1.64	0.96	0.68	4.1	4.1	3.2	5.5
930	20.0	16.6	18.5	7.3	11.3	37	16	0.40	0.30	0.12	0.18	4.6	4.5	3.5	5.2
931	40.0	33.0	33.0	15.8	17.2	31	23	0.80	0.76	0.36	0.40	5.1	5.1	3.5	6.6
936	59.0	39.0	39.0	26.3	12.8	24	19	0.77	0.74	0.50	0.24	3.8	3.8	2.8	6.0
937	45.0	35.2	35.2	23.4	11.8	44	32	1.19	1.13	0.75	0.38	4.1	4.1	2.8	6.5
						132524	67867	2415.74	2091.45	1287.19	803.90				

APPENDIX 2

Cross-Reference List of Bog No. to Peatland Map No.

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  1   - I  8     42   - I 59    116   - I 64    168   - I 58    219   - I 31    301   - I 14    373   - J 40    438 A - J 23
  1 A - I  8     43   - I 58    117   - I 62    169   - I 59    219 A - I 31    301 A - I 14    373 A - J 40    439   - J 23
  3   - I 13     44   - I 82    118   - I 86    170   - I 53    219 B - I 22    302   - I 15    374   - J 40    440   - J 25
  3 A - I  8     44 A - I 80    118 A - I 86    170 A - I 53    220   - I 38    302 A - I 16    375   - J 39    440 A - J 25
  3 B - I 13     45   - I 83    119   - I 84    171   - I 53    220 A - I 38    303   - I 15    376   - J 41    441 A - J 19
  4   - I  9     46   - I 84    120   - I 43    171 A - I 53    221   - I 38    303 A - I 17    376 A - J 45    442   - J 20
  5   - I 10     47   - I 88    121   - I 83    173   - I 52    224   - I 37    304   - I 20    377   - J 31    442 A - J 19
  5 A - I 10     47 A - I 88    121 A - I 83    173 A - I 52    225   - I 37    304 A - I 17    378   - J 31    443   - J 19
  6   - I 12     48   - I 81    122   - I 44    174   - I 56    226   - I 37    305   - I 20    379   - J 30    443 A - J 19
  6 A - I 10     49   - I 92    123   - I 44    176   - I 59    227   - I 37    306   - I 20    380   - J 30    444   - J 18
  7   - I 11     50   - I 92    124   - I 45    177   - I 86    228   - I 36    308   - I 20    381   - J 42    445   - J 28
  8   - I 11     52   - I 89    125   - I 45    178   - I 59    228 A - I 30    311   - I 23    381 A - J 45    446   - J 28
  9   - I  6     52 A - I 90    126   - I 80    179   - I 59    229   - I 33    311 A - I 22    382   - J 43    447   - J 28
  9 A - I  6     52 B - I 90    126 A - I 79    180   - I 59    230   - I 33    312   - I 23    383   - J 43    448   - J 32
 10   - I  5     52 C - I 90    130   - I 42    181   - I 46    242   - I 35    313   - I 23    384   - J 43    448 A - J 33
 11   - I 28     53   - I 87    133   - I 79    181 A - I 46    242 A - I 95    318   - I 12    386   - J 43    448 B - J 33
 12   - I 28     54   - I 62    134   - I 97    182   - I 46    242 B - I 95    319   - I 11    387   - J 43    448 C - J 32
 12 A - I 28     55   - I 60    134 A - I 97    183   - I 46    242 C - I 95    320   - I 20    388 A - J 37    449   - J 32
 13   - I 29     55 A - I 61    135   - I 97    190   - I 47    243   - I 35    323   - I 21    389   - J 44    449 A - J 38
 14   - I 29     56   - I 63    137   - I 98    190 A - I 47    244   - I 35    324 E - I 19    390   - J 37    449 B - J 38
 14 A - I 29     57   - I 64    138   - I 98    191   - I 48    245   - I 36    324 N - P 80    391   - J 39    449 C - J 38
 16   - I 30     58   - I 67    139   - I 99    192   - I 50    248   - I 40    324 W - I 16    391 A - J 45    450   - J 16
 17   - I 34     58 A - I 67    139 A - I 98    193   - I 50    249   - I 40    337   - P 82    392   - J 38    451   - J 16
 17 A - I 34     60   - I 69    140   - I 99    194   - I 51    250   - I 40    337 A - P 82    392 A - J 38    456   - J 17
 19   - I 31     61   - I 71    141   - I 42    195   - I 51    251   - I 41    338   - P 81    393   - J 36    457   - J 17
 19 A - I 38     62   - I 67    144   - I 92    196   - I 50    252   - I 28    339   - P 80    393 A - J 36    457 A - J 17
 20   - I 33     63   - I 68    145   - I 92    197   - I 49    253   - I 34    340   - P 69    397   - I 74    458   - J 16
 21   - I 33     64   - I 68    146   - I 92    198   - I 55    256   - I 34    341   - P 69    399   - I 74    459   - J 17
 22   - I 36     66   - I 68    146 B - I 93    198 A - I 55    256 A - I 95    342   - P 69    400   - I 74    460   - J 16
 22 A - I 38     70   - I 65    146 C - I 92    199   - I 55    256 B - I 95    342 A - P 71    405   - I 74    460 A - J 17
 22 B - I 38     71   - I 65    147   - I 92    200   - I 85    256 C - I 95    343   - P 70    408   - I 75    461   - J 21
 23   - I 37     72   - I 67    148   - I 92    200 A - I 85    257   - I 34    348   - P 77    414   - I 76    462   - J 21
 23 A - I 39     73   - I 66    149   - I 92    202   - I 54    258   - I 34    350   - P 77    415   - I 76    462 A - J 20
 24   - I 40     75   - I 66    150   - I 92    203   - I 94    261   - I 96    352   - P 77    416   - I 76    465   - G 34
 25   - I 41     76   - I 70    150 A - I 93    203 A - I 94    261 A - I 96    352 A - P 77    417   - I 76    466   - G 35
 25 A - I 41     77   - I 75    151   - I 81    203 B - I 94    261 B - I 96    353   - P 71    419   - I 77    467   - G 34
 25 D - I 41     77 A - I 76    152   - I 81    204   - I 60    261 C - I 96    354   - P 79    425   - I 73    468   - G 35
 25 E - I 41     78   - I 75    153   - I 81    204 A - I 61    263   - I  7    356   - P 79    426   - I 73    468 A - G 36
 26   - I 40     79   - I 75    154   - I 81    205   - I 60    264   - I  7    357   - P 78    428   - I 69    469   - G 37
 27   - I 45     95   - I 72    154 A - I 91    205 A - I 61    265   - I  7    357 A - P 78    429   - J 21    469 A - G 38
 28   - I 44     96   - I 72    154 B - I 91    206   - I 68    266   - I  3    358   - J 35    429 A - J 22    470   - G 39
 29   - I 44     98   - I 71    155   - I 91    207   - I 68    267   - I  4    359   - J 35    430   - J 21    470 A - G 38
 30   - I 42    103   - I 62    156   - I 93    208   - I 68    268   - I  4    360   - J 35    431   - J 25    473   - G 40
 31   - I 43    104   - I 62    158   - I 80    209   - I 53    269   - I  5    363   - J 34    431 A - J 25    474   - G 40
 32   - I 78    105   - I 62    159   - I 47    209 A - I 53    270   - I  5    364   - J 34    431 B - J 25    475   - G 40
 32 A - I 78    106   - I 88    159 A - I 47    211   - I 26    271   - I  5    364 A - J 34    431 C - J 33    476   - G 41
 33   - I 79    107   - I 87    160   - I 48    212   - I 27    276   - I  1    365   - J 34    432   - J 26    479   - P 72
 34   - I 50    107 A - I 87    161   - I 48    213   - I 24    277   - I  1    367   - J 35    432 A - J 26    479 A - P 73
 36   - I 39    108   - I 82    162   - I 48    213 A - I 32    278   - I  1    368   - J 35    433   - J 26    480   - P 72
 36 A - I 39    110   - I 83    162 A - I 48    214   - I 25    279   - I  1    369   - J 33    434   - J 26    480 A - P 83
 37   - I 49    111   - I 89    163   - I 48    214 A - I 25    282   - I  1    369 A - J 33    434 A - J 26    481   - P 72
 38   - I 55    112   - I 89    164   - I 58    215   - I 25    284   - I  2    369 B - J 33    435   - J 26    482   - P 72
 39   - I 56    113   - I 88    165   - I 58    217   - I 25    285   - I  2    370   - J 40    436   - J 26    483   - P 72
 40   - I 57    114   - I 88    166   - I 58    217 A - I 39    286   - I  2    371   - J 40    437   - J 24    484   - P 72
 41   - I 57    115   - I 64    167   - I 58    218   - I 39    287   - I  1    372   - J 40    438   - J 23    486   - P 73
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486 A - P 73
486 B - P 73
487 - P 73
488 A - P 73
489 A - P 73
490 - P 73
490 A - P 74
491 - P 76
491 A - P 76
492 - P 76
493 A - P 74
494 - P 75
494 A - P 75
494 B - P 75
495 - P 75
496 - P 64
496 A - P 64
497 - P 64
497 A - P 65
498 - P 64
502 - P 66
502 A - P 66
503 - P 66
503 A - P 65
506 A - P 64
507 - P 63
507 A - P 62
508 - I 22
510 - I 32
511 - I 32
512 - P 68
513 - P 67
513 A - P 67
513 B - P 67
514 - P 58
514 A - P 58
515 - P 56
516 - P 57
517 - P 57
517 A - P 57
518 - P 57
522 - P 61
522 A - P 61
523 - P 59
524 - P 59
525 - P 60
525 A - P 60
526 - P 39
527 - P 39
528 - P 38
528 A - P 38
529 - P 38
530 - P 40
531 - P 50
531 A - P 50

532 - P 41
536 - P 53
537 - P 54
541 - P 55
541 A - P 56
542 - P 55
544 - P 44
546 - P 44
547 - P 44
548 - P 44
549 - P 47
550 - P 47
551 - P 42
551 A - P 42
552 - P 43
553 - P 43
553 A - P 43
554 - P 51
554 A - P 51
555 - P 51
559 - P 52
559 A - P 52
561 - P 29
562 - P 30
563 - P 45
564 - P 45
565 A - P 45
566 - P 46
567 - P 33
568 - P 33
569 - P 33
570 - P 33
574 - P 35
575 - P 35
575 A - P 35
576 - P 35
577 - P 34
578 - P 34
578 A - P 32
579 - P 32
579 A - P 32
580 - P 34
581 - P 27
582 - P 28
583 - P 28
585 - P 28
587 - P 20
588 - P 28
589 - P 28
589 A - P 28
590 - P 32
591 - P 36
592 - P 37
592 A - P 36
593 - P 48

597 - P 48
598 - P 49
599 - P 49
600 - P 31
600 A - P 31
601 - I 78
606 - P 82
608 A - P 65
609 - P 62
610 - P 62
611 - P 62
612 - P 62
615 - G 76
618 - G 74
619 - G 74
620 - G 74
621 - G 75
622 - G 75
623 - G 76
625 - G 76
627 - G 76
628 - G 76
629 - G 76
631 - G 72
632 - G 72
633 - G 73
634 - G 73
635 - G 73
636 - G 73
638 - G 73
639 - G 71
641 - G 62
642 - G 62
643 - G 62
644 - G 62
645 - G 62
646 - G 58
648 - G 63
649 - G 63
650 - G 56
651 - G 63
652 - G 53
652 A - G 53
653 - G 61
654 - G 55
655 - G 60
656 - G 57
657 - G 60
658 - G 54
660 - G 59
661 - G 54
662 - G 54
664 - G 69
667 - G 69
667 A - G 66

667 B - G 66
667 C - G 66
668 - G 69
669 - G 69
670 - G 69
672 A - G 65
672 B - G 65
678 - G 67
679 - G 67
680 - G 67
681 - G 69
684 - G 68
684 A - G 68
688 - G 70
689 A - G 74
690 - G 43
691 - G 43
692 - G 42
693 - G 42
700 - G 27
703 - G 27
703 A - G 27
707 - G 21
707 A - G 21
708 - G 26
708 A - G 26
709 - G 24
710 - G 24
711 - G 24
712 - G 24
713 - G 23
716 - G 23
717 - G 64
717 A - G 64
718 - G 22
718 A - G 18
722 - G 65
723 - G 64
723 A - G 25
723 B - G 25
723 C - G 25
724 - G 45
725 - G 49
726 - G 52
727 - G 19
728 - G 19
729 - G 19
729 A - G 19
731 - G 18
733 - G 18
736 - G 62
737 - G 45
738 - G 45
738 A - G 46
740 - G 10

742 - G 10
744 - G 46
744 A - G 46
745 - G 44
749 - G 50
750 - G 10
751 - G 47
753 - G 49
758 - G 48
758 A - G 51
759 - G 48
762 - G 48
763 - G 48
765 - G 50
766 A - G 2
767 - G 1
767 A - G 1
767 B - G 1
768 - G 5
769 - G 5
770 - G 4
770 A - G 4
771 - G 4
772 - G 2
772 A - G 2
773 - G 3
774 - G 3
775 - G 6
775 A - G 5
776 - G 13
778 - G 11
779 - G 12
779 A - G 12
781 - G 14
782 - G 15
783 - G 14
784 - G 13
784 A - G 14
785 - G 13
785 A - G 12
785 B - G 13
788 - G 16
790 - G 17
791 - G 17
791 A - G 17
792 - G 16
793 A - G 16
794 - G 16
794 A - G 16
795 - G 19
795 A - G 19
796 - G 8
797 - G 8
798 - G 8
798 A - G 8

799 - G 8
802 - G 9
803 - G 9
804 - G 30
804 A - G 30
805 - G 29
809 - G 33
909 A - G 32
809 B - G 32
811 - G 20
811 A - G 20
812 - G 20
813 - J 11
814 - J 14
814 A - J 14
815 - J 12
816 - J 13
816 A - J 14
817 - J 13
817 A - J 13
820 - J 15
821 - J 15
822 - J 15
823 - J 15
828 - J 15
832 - J 10
834 - J 10
835 - J 10
836 - J 10
836 A - J 10
837 - J 9
838 - J 9
841 - J 9
841 A - J 9
842 - J 27
843 - J 27
844 - J 27
846 - J 7
846 A - J 7
846 B - J 7
846 C - J 7
849 - J 6
849 A - J 6
850 - J 8
851 - J 8
852 - J 8
855 - J 3
857 - B 1
858 - B 1
859 - B 1
860 - B 1
861 - B 3
862 - B 3
873 - H 5
873 A - H 5

874 - H 5
875 - H 5
876 - H 5
877 - H 5
878 - H 5
879 - H 4
880 - H 1
881 - H 1
882 - H 2
883 - H 2
884 - I 73
885 - I 73
886 - I 73
887 - H 1
887 A - H 1
888 - H 3
888 A - H 3
891 - G 6
894 - G 7
894 A - G 7
900 - J 5
901 - J 5
902 - J 1
903 - J 1
904 - J 1
905 - J 1
906 - J 2
907 - J 2
911 - J 3
912 - J 3
913 - J 4
914 - J 4
915 - O 3
919 - O 3
920 - O 4
921 - O 4
923 - P 83
924 - P 83
925 - P 83
926 - P 83
927 - O 2
928 - O 2
929 - O 1
930 - O 1
931 - O 1
936 - B 2
937 - B 2

APPENDIX 3

Listing of Number of Sheets of Profiles Associated With Individual Peatland Maps

Peatland Map No.	Bog No.	No. of Lines	No. of Sheets of Profiles
G 1	767	16	8
G 3	773	5	3
G 4	770	14	8
G 9	803	3	2
G11	778	7	4
G12	785A	4	3
G13	785B	6	3
	785	4	2
G16	792	8	6
G17	791	4	2
	790	5	3
G18	731	4	2
G19	795	4	2
	795A	2	2
G20	811A	2	1
	811	4	2
G21	707	5	3
G23	713	7	3
G26	708	4	2
G30	804	4	2
G45	737	5	3
G50	765	3	2
G51	758A	3	2
G52	736	6	3
G53	652	5	3
G54	661	4	2
G59	660	4	2
G73	633	3	2
H 1	887A	3	1
	887	2	1
	881	3	1
	880	3	1
H 2	883	4	1
I 3	266	4	1
I 5	271	4	1
I 5	10	6	2
I 6	9	6	1
I 8	1	5	2
I 9	4	6	2
I10	5	4	1
	5A	3	1
I11	7	5	1
I12	6	4	1
I13	3	7	2
I14	301	6	5
	301A	5	2
I16	302A	4	1
	324W	17	15
I17	304A	7	2
	303A	4	1
I19	324E	13	9
I20	306	6	3
	305	6	4
I21	323	6	2
I22	508	3	1
I23	313	6	1
I24	213	14	6
I25	215	4	1
I26	211	5	1
I27	212	6	1
I28	11	6	1
	12	5	1
I29	13	4	1
	14	4	1
I30	16	7	2
I31	19	2	1
I33	20	4	1
	21	5	1
I34	17A	3	1
	17	5	2
	258	2	1
	256	4	1

Peatland Map No.	Bog No.	No. of Lines	No. of Sheets of Profiles
I35	242	6	1
I36	245	4	1
	22	4	1
I37	23	8	2
	224	3	1
I39	36	5	1
I40	24	7	4
I41	25	12	7
I42	30	5	3
I43	31	4	3
I44	29	5	1
	28	5	1
I45	27	4	2
I55	38	7	2
I56	39	4	1
I57	40	4	2
	41	4	2
I60	55	3	1
I62	54	6	2
I63	56	5	2
I64	57	5	2
	115	5	2
I67	58	4	2
I69	60	5	3
I70	76	7	2
I71	61	6	3
I73	884	3	2
I78	32	11	6
I79	33	4	2
I81	48	4	1
	153	5	2
I82	44	6	3
I83	45	4	2
I84	46	6	3
I88	47	4	3
I89	52	7	2
I97	134	3	1
J 2	906	6	3
J 7	846	10	5
J 8	852	4	2
	851	4	2
	850	2	1
J 9	841	3	2
J10	834	4	2
J11	813	3	2
J12	815	6	3
J23	438	4	2
J25	440	8	4
J26	434	10	5
	432	4	2
J32	448	4	2
J34	364	4	2
J35	368	4	2
	358	4	2
J36	393	4	2
J37	390	4	3
	388A	3	2
J39	391	6	4
J40	373	7	4
J41	376	6	3
J42	381	3	2
J43	383	3	2
J44	389	8	3
P27	581	8	4
P28	582	21	8
	583	3	1
P29	561	8	2
P30	562	7	3
P31	600	6	2
P32	590	4	1

Peatland Map No.	Bog No.	No. of Lines	No. of Sheets of Profiles
P33	570	5	1
	569	6	1
	568	7	3
	567	4	1
P34	580	6	3
	578	4	1
	577	4	1
P35	576	4	2
	574	4	1
P36	591	17	8
P37	592	9	3
P38	529	18	6
	528A	2	2
	528	5	1
P39	527	6	3
	526	4	1
P40	530	8	2
P41	532	8	3
P42	551A	3	1
	551	5	2
P43	553	4	1
	552	5	2
P44	548	4	1
	547	4	1
	544	3	1
P45	565A	3	1
	563	3	1
P46	564	4	1
P47	550	3	1
	549	4	1
P48	597	4	1
	593	4	1
P49	599	4	1
	598	7	2
P50	531	4	1
P51	554	5	2
P52	559	3	1
P53	536	5	1
P54	537	5	1
P55	541	4	1
	542	3	1
P56	515	4	1
P57	516	4	1
	517	4	1
P58	514	4	1
P59	524	13	5
	523	4	1
P60	525	6	2
P61	522	5	1
P62	507A	5	1
P63	507	11	2
P64	498	5	1
	497	4	1
	496	3	1
P66	502	3	1
	502A	3	1
	503	4	1
P67	513	6	1
P68	512	7	1
P70	343	4	1
P71	353	4	1
P72	479	10	2
P74	493A	4	1
P75	494	6	2
P76	491	8	2
P79	354	5	2
	356	4	1
P80	339	2	1
	324N	12	8
P81	338	3	1
P82	337A	4	1
	337	6	2

APPENDIX 4

Previously Identified Peatlands Not Investigated In the Inventory

The 1975 report by Airphoto Analysis Associates Consultants Ltd. was used as a guide in the selection of sites for field investigation. This document identified more than 810 peatlands. In the course of the field program, about 240 additional deposits were identified and investigated. These deposits were assigned a letter suffix and the number of a nearby peatland, e.g., Bog No. 551A (identified during the field program) is a deposit near Bog No. 551. Deposits numbered 900 or higher are also peatlands not identified in the original study.

However, some 190 deposits identified in the aerial photograph study were not included in the field investigations. In the majority of cases they were excluded because the small size of the deposits indicated a limited potential for development. Deposits inside parks, military bases, etc. were also excluded from field investigation. About 40 deposits that were identified in the aerial photograph study were investigated as portions of other deposits during the field program and hence do not appear separately in this document.

The following pages list the deposits that were identified in the Airphoto Analysis Associates Consultants Ltd. report but were not included in the field program. The reason for the exclusion is also provided.

BOG NO.	REASON FOR EXCLUSION	BOG NO.	REASON FOR EXCLUSION	BOG NO.	REASON FOR EXCLUSION
11A, B	Small size	222	Small size	326	In Kouchibouguac Park
11C	Combined with 11	223	Small size	327	In Kouchibouguac Park
11D	Combined with 11	231	Renumbered to 510	328	In Kouchibouguac Park
13A, B	Small size	246	Small size	344	Small size
25C	Combined with 25	247	Small size	345	Small size
25F	Combined with 25	250B	Small size	346	Small size
65	Small size	254	Small size	347	Small size
80	Small size	255	Small size	351	Small size
91	Small size	272	Combined with 9	355	Small size
92	Small size	273	Small size	361	Combined with 360
93	Small size	274	Small size	362	Small size
94	Small size	275	Small size	366	Small size
97	Small size	280	Small size	388	Combined with 389
99	Small size	281	Small size	389A	Combined with 390
100	Small size	283	Small size	394	Small size
101	Small size	307	Shallow paludified area	395	Small size
102	Small size	309	In Kouchibouguac Park	396	Small size
109	Small size	310	In Kouchibouguac Park	398	Small size
127	Small size	314	In Kouchibouguac Park	401	Small size
128	Small size	315	In Kouchibouguac Park	402	Small size
129	Small size	316	In Kouchibouguac Park	403	Small size
131	Combined with 130	317	Small size	404	Small size
132	Combined with 133	321	In Kouchibouguac Park	406	Small size
210	In Kouchibouguac Park	322	In Kouchibouguac Park	407	Small size
216	Small size	325	In Kouchibouguac Park	409	Small size

BOG NO.	REASON FOR EXCLUSION	BOG NO.	REASON FOR EXCLUSION	BOG NO.	REASON FOR EXCLUSION
410	Small size	500	Small size	584	Combined with 583
411	Small size	501	Small size	586	Small size
412	Small size	504	Small size	593	Small size
413	Small size	505	Small size	594	Renumbered as 593
418	Small size	509	In Kouchibouguac Park	595	Shallow marsh
420	Small size	510	Small size	596	Small size
421	Small size	511	Small size	602	Small size
424	Small size	519	Small size	603	Small size
425	Small size	520	Small size	604	Small size
427	Small size	521	Small size	605	Small size
441	Combined with 442	533	Small size	607	Small size
451	Combined with 450	534	Shown on map P54 shallow peat	608	Combined with 512
452	Combined with 450	535	Small size	613	Small size
453	Combined with 450	538	Small size	614	Small size
454	Renumbered as 451	539	Small size	616	Small size
455	Renumbered as 451	540	Small size	617	Small size
471	Combined with 469	556	Small size	624	Combined with 625
472	Combined with 469	557	Small size	626	Combined with 625
477	Small size	558	Small size	630	Combined with 629
478	Small size	560	Small size	637	Combined with 636
485	Small size	565	Combined with 564	640	Marsh - small size
488	Combined with 487	571	Small size	647	Combined with 646
489	Combined with 487	572	Small size	659	Combined with 660
493	Small size	573	Small size	663	Marsh - small size
499	Small size			665	Small size

BOG NO.	REASON FOR EXCLUSION	BOG NO.	REASON FOR EXCLUSION	BOG NO.	REASON FOR EXCLUSION
666	Swamp - small size	714	Small size	780	Marsh - small size
671	Small size	715	Swamp - small size	787	Small size
672	Small size	719	Combined with 718	788	Small size
673	Small size	720	Combined with 718	789	Small size
674	Small size	721	Small size	793	Combined with 792
675	Small size	730	Small size	800	Small size
676	Small size	732	Combined with 733	801	Cmall size
677	Small size	734	Combined with 733	806	Small size
682	Small size	735	Small size	807	Small size
683	Not peatland - burnt over area	739	Small size	808	Marsh - small size
685	Small size	741	Combined with 740	810	Swamp - small size
686	Small size	743	Combined with 744	818	Marsh - small size
687	Small size	746	Small size	819	Marsh - small size
689	Small size	747	Small size	824	Small size
694	Small size	748	Small size	825	Small size
695	Small size	752	Small size	826	Small size
696	Combined with 805	754	Combined with 753	827	Small size
698	Combined with 805	755	Combined with 753	829	Small size
699	Combined with 805	756	Combined with 753	830	Small size
701	Small size	757	Swamp - small size	831	Small size
702	Small size	760	Small size	833	Small size
704	Combined with 804	761	Swamp - small size	839	Small size
705	Combined with 805	764	Swamp - small size	840	Small size
706	Small size	766	Marsh - small size	845	Access restricted on private road
		777	Renumbered to 791A		

BOG NO.	REASON FOR EXCLUSION
847	Swamp - small size
848	Access restricted on private road
853	Small size
854	Small size
856	Renumbered to 929
863	Small size
864	Small size
865	Small size
866	Small size
867	Small size
868	Small size
369	Small size
870	Small size
871	Small size
872	Small size
889	Small size
890	Small size
892	Small size
893	Small size

APPENDIX 5

Analytical Methods

ANALYTICAL METHODS

A sizeable data bank of analytical information has been built up in the course of the program. Unfortunately, time and financial restrictions do not permit evaluation and interpretation of the data as part of this project. The brief synopsis that follows is intended primarily as a record of methodology to facilitate the tasks of future users.

A brief description of each analytical method, a brief statistical summary, and pertinent comments are given in this section.

The statistical summaries give the number of samples and the range and mean value for each set of analyses. No attempt has been made to screen anomalous values or remove samples that were taken from disturbed areas, for example, deposits under production. Such samples may give deceptive limits to ranges, e.g., a surface sample from a production bog may have a low moisture content due to drainage. However, screening and correction of errors that occurred in data entry have been completed and anomalous values presently in the file can be assumed to be "real".

MOISTURE CONTENT

The moisture content (percent of wet weight) was determined for all samples. Duplicate moisture contents were determined for most ash analysis samples and for selected 1977 dry analysis samples.

The samples were oven dried to constant weight at 105°C. Residence time in the oven was a minimum of 48 hours. The moisture content was then calculated according to the following formula:

$$MC = \frac{WET - DRY}{WET} \times 100$$

Where: MC = moisture content (% of wet weight)
WET = weight of wet peat
DRY = weight of dry peat

The moisture contents determined from the ash and dry analyses (including duplicate samples) range from 41.9% to 97.7% and average 91.2% (number of values averaged, n = 3030).

See Klemetti and Keys (1983) and Tolonen *et al*. (1982) for interpretations of portions of the data file.

BULK DENSITY

Dry bulk density (kg/m^3) was determined for 1980-81 ash analysis samples and for 1979-81 dry analysis samples. Duplicate bulk densities were determined for most ash analysis samples.

The bulk density was calculated from oven-dried (see Moisture Content), volume-accurate samples (the sampling method was described earlier in this report).

The bulk densities determined from the ash and dry analyses range from 10 kg/m^3 to 598 kg/m^3 and average 79 kg/m^3 (n = 1400).

The upper range of the bulk density values results from analysis of ooze samples. The highest values for peat samples are 246 kg/m^3 (dry-type samples) and 265 kg/m^3 (ash-type samples).

See Keys (1984), Klemetti and Keys (1983), and Tolonen _et al_. (1982) for partial interpretations of the data file.

GROSS CALORIFIC VALUE

The gross calorific value (cal/g) was determined for all ash analysis samples.

The samples were dried to constant weight at 105°C prior to being ground in a Quaker City Mill. Each sample was then sealed in plastic and forwarded to commercial laboratories at the Research and Productivity Council (Fredericton) for determination of calorific value. Gross calorific value was determined using an adiabatic bomb calorimeter in accordance with American Society for Testing Materials (ASTM) Test for Gross Calorific Value of Solid Fuel by the Adiabatic Bomb Calorimeter (ASTM D 2015). Although the procedure calls for approximately 1 g of pelletized sample, some difficulties were encountered in making a cohesive pellet. Thus, a pellet with 0.5-0.7 g of peat was formed, and 0.3-0.5 g of mineral oil was added and allowed to soak into the pellet as a binder. The calorific value of the oil was known and a correction made in the calculations.

The calorific values for all samples range from 1239 cal/g to 6223 cal/g and average 4803 cal/g (n = 902).

See Keys (1983b, 1984) for interpretation of the data.

ASH CONTENT

Ash content (per cent of dry weight) was determined for all ash analysis samples.

Ash content was determined by gradually increasing oven temperature to 700°C and maintaining it for 8 hours, then allowing the oven to cool overnight. Initially the determinations were made using conventional muffle furnaces. Since at least 1 g of ash was required for analysis purposes and ash contents were generally low, it was necessary to ash a large volume of material for each sample. The muffle furnace allowed only a few samples to be completed in each batch, and several weeks were required to complete a large number of samples. It was found that a pottery kiln with programmable temperature regulation allowed a greater number of samples to be included in each batch.

The quantity of ash required also resulted in problems with finding a suitable container for the ashing. Several porcelain crucibles were often required for one sample. Since the samples had been finely ground, the peat tended to compact in the crucible. Incomplete ashing sometimes resulted, and was probably due to low oxygen availability caused by a combination of compaction of the sample and the small surface area exposed in the high-walled crucibles. In an attempt to increase the exposed surface area and reduce the number of containers required for each sample, glazed porcelain evaporating dishes were used. These were unsatisfactory, since they tended to fracture after a few heatings. However, 200 mL Vitresil evaporating dishes were found to hold a large volume of sample and withstand repeated heatings. Ashing was generally complete using these containers.

The ash contents for all samples range from 0.1% to 78.9% and average 5.3% (n = 930).

The upper range of ash contents almost exclusively result from ooze samples.

See Keys (1983b, 1984) for partial interpretation of the data.

ASH-FREE CALORIFIC VALUE

Ash-free calorific value (cal/g) was calculated for all ash analysis samples.

The determination was made using the following formula:

$$\text{AFCV} = \frac{\text{GCV} \times 100}{100 - \text{ASH}}$$

Where: AFCV = ash-free calorific value (cal/g)
GCV = gross calorific value (cal/g)
ASH = ash content (% of dry weight)

The ash-free calorific values for all samples range from 2521 cal/g to 7356 cal/g and average 5040 cal/g (n = 892).

See Keys (1983b, 1984) for interpretation of the data.

SULPHUR

Sulphur (per cent of dry peat) was determined for all ash analysis samples and for 1977 dry analysis samples.

Sulphur was determined on the bomb washings (see methods for gross calorific value determination) in accordance with ASTM Test for Total Sulphur in the Analysis Sample of Coal and Coke (ASTM D 3177). However, the determination was made turbidimentrically rather than by precipitation as specified. Mean sulphur content was only 0.14%, so no corrections were made in the calculation of calorific values.

The sulphur contents for all samples range from 0.01% to 4.1% and average 0.14% (n = 822).

VOLATILES

Volatiles (per cent of dry peat) were determined for all ash analysis samples.

The determinations were made by controlled ignition at 750° C in a Lindberg furnace, according to the ASTM method for volatiles in coal (ASTM D 3175).

The volatile contents for all samples range from 42.7% to 91.7% and average 73.1% (n = 905).

ASH MELTING POINT

The ash melting point (°C) was determined for selected 1977 ash analysis samples.

The determination was made by heating the ash to 1250°C by 50°C increments in magnesia crucibles.

The ash melting points for all samples range from 1175°C to 1250°C and average 1233°C (n = 88).

It should be noted that 46 of the samples analyzed had ash melting points in excess of 1250°C, thus the average for all samples is actually higher than that given.

TOTAL CARBON

Total carbon (per cent of dry peat) was determined for 1977-79 and 1981 ash analysis samples, and for 1977 dry analysis samples.

The determinations were made by oxidation to CO_2 in a Leco Carbon Analyzer.

Separate carbon determinations using microcombustion procedures were performed for selected 1978-80 ash analysis samples.

The total carbon contents for all samples range from 10% to 60% and average 50% (n = 440).

TOTAL NITROGEN

Total nitrogen (per cent of dry peat) was determined for selected ash anslysis samples using the Kjeldhal Method for nitrogen analysis. Separate nitrogen determinations using microcombustion procedures were performed for selected 1978-80 ash analysis samples.

The total nitrogen contents for all ash analysis samples range from 0.3% to 3.4% and average 1.2% (n = 556).

Total nitrogen (ppm of dry peat) was determined for selected 1977 dry analysis samples using a Coleman 29A nitrogen analyzer, which determines nitrogen by the Dumas Method.

The total nitrogen contents for the dry analysis samples range from 220 ppm to 13 100 ppm and average 5022 ppm (n = 74).

TOTAL PHOSPHORUS

Total phosphorus (per cent of dry peat) was determined for all 1978-81 ash analysis samples and for 1977 dry analysis samples.

The samples were digested in nitric and perchloric acid, and the determinations were made by colorimetry using a molybdate-vanadate reagent.

The total phosphorus contents for all samples range from 0.003% to 0.301% and average 0.026% (n = 745).

AVAILABLE NITROGEN

Available nitrogen (ppm of dry peat) was determined for selected 1978-81 ash analysis samples.

The determination was made by extraction with 2N KCL and subsequent distillation of the extract in the presence of MgO. The distillate was filtrated with dilute sulphuric acid.

The available nitrogen contents for all samples range from 5 ppm to 1115 ppm and average 148 (n = 221).

AVAILABLE PHOSPHORUS

Available phosphorus (ppm of dry peat) was determined for selected 1978-81 ash analysis samples.

The determinations were made by extraction with sulphuric acid and colorimetry as the molybdenum blue complex.

The available phosphorus contents for all samples range from 0.3 ppm to 6.0 ppm and average 1.7 ppm (n = 223).

It should be noted that all 1981 samples were reported as having values of less than 1.0 ppm; thus, the average is actually lower than that given.

CHLORINE

Chlorine was determined as chloride (ppm of dry peat) for selected 1977-80 ash analysis samples by argentometric titration of an aqueous extract.

Chlorine (ppm of dry peat) was also determined for selected 1977-79 dry analysis samples by alkalizing with a sodium carbonate solution and then ashing. The ash was then dissolved, acidified and titrated by the Volhard procedure.

The chlorine contents for the ash analysis samples range from 5 ppm to 1400 ppm and average 196 ppm (n = 177).

The results for the dry analysis samples range from 270 ppm to 2540 ppm and average 935 ppm (n = 45).

The chlorine levels for 1977-78 samples were two or three orders of magnitude greater than those in successive sampling years. This may be due, in part, to the fact that much of the sampling during this peirod was performed on extreme coastal peatlands that would be exposed to salt spray from the sea.

SULPHATE

Sulphate (per cent of peat ash) was determined for 1977 ash analysis samples gravimetrically.

The sulphate contents for all samples range from 1.4% to 29.6% and average 15.2% (n = 123).

Due to the relatively even and predictable sulphate distribution in the peat samples, and for cost considerations, analysis for sulphate was discontinued after 1977.

URANIUM

Uranium (ppm of dry peat) was determined for selected 1977-79 ash analysis samples and for selected 1978-80 dry analysis samples. In 1977, the determination was made by plasma analysis on ashed peat. In other years, the method was delayed neutron counting on dry peat.

The uranium contents for all samples range from 0.1 ppm to 25 ppm and average 1.5 ppm (n = 275).

HYDROGEN

Hydrogen (per cent of dry peat) was determined for selected 1978-80 ash analysis samples using microcombustion procedures.

The hydrogen contents range from 3.2% to 7.6% and average 6.1% (n = 128).

OXYGEN

Oxygen (per cent of dry peat) was determined for selected 1978-79 ash analysis samples using microcombustion procedures.

The oxygen contents range from 32.9% to 71.8% and average 43.8% (n = 54).

METALS AND OTHER ELEMENTS

The methods used to analyze the remaining metals (Table 15) are outlined below.

1977 Ash: Plasma analysis on ashed peat.

1978-81 Ash: Ashed peat was digested with nitric acid, made up to volume with water, then read on an Atomic Absorption Spectrophotometer using appropriate standards and flame conditions.

1977-81 Dry: Dry peat was digested with nitric and perchloric acids, made up to volume with water, than read on an Atomic Absorption Spectrophotometer using appropriate standards and flame conditions.

SILICA

Silica was determined for selected 1977 ash analysis samples (per cent of peat ash) and selected 1977 dry analysis samples (per cent of dry peat).

The silica contents for the ash samples range from 7.7% to 65.3% and average 28.5% (n = 42).

The results for the dry samples range from 0.03% to 5% and average 0.4% (n = 31).

Due to the relatively even distribution of silica in the samples, analysis for silica was discontinued after 1977 as a means of reducing project costs.

SOLUBLE SILICON

Soluble silicon (per cent of peat ash) was determined for all 1977 ash analysis samples.

The soluble silicon contents range from 0.01% to 2.93% and average 0.52% (n = 131).

To reduce costs, this analysis was discontinued after 1977 because the values obtained were relatively low and soluble silicon was evenly distributed.

IRON

Iron was determined for all ash analysis samples (per cent of peat ash) and all dry analysis samples (ppm of dry peat).

The iron contents for the ash samples range from 0.1% to 32.1% and average 6.2% (n = 925).

The iron contents for the dry samples range from 10 ppm to 75 000 ppm and average 1781 ppm (n = 1317).

Many of the higher iron values result from analysis of ooze samples, which typically have high iron contents.

Anomalous iron values were obtained for Bog 804 near Beaverdam, which is a known bog iron occurrence.

ALUMINUM

Aluminum (per cent of peat ash) was determined for all 1977 ash analysis samples.

The aluminum contents range from 0.3% to 13.2% and average 5.0% (n = 131).

To reduce costs, this analysis was discontinued after 1977 due to the relatively even distribution of aluminum.

CALCIUM

Calcium was determined for 1977 ash analysis samples (per cent of peat ash) and for all dry analysis samples (ppm of dry peat).

The calcium contents for the ash samples range from 0.3% to 25.3% and average 8.8% (n = 131).

The results for the dry samples range from 43 ppm to 99 999 ppm and average 2220 ppm (n = 1317).

The extreme calcium value of 99 999 ppm resulted from the analysis of marl samples, which are largely formed of small shells. Excluding these sample analyses, the highest calcium value recorded was 48 000 ppm.

Due to cost considerations, the analysis of ash samples for calcium content was discontinued after 1977.

POTASSIUM

Potassium was determined for all ash analysis samples (per cent of peat ash) and for all dry analysis samples (ppm of dry peat).

The potassium contents for the ash samples range from 0.01% to 13.1% and average 0.92% (n = 927).

The results for the dry samples range from 10 ppm to 8600 ppm and average 350 ppm (n = 1317).

More than 80% of the 1977 ash samples were reported as having values of less than 0.1%.

SODIUM

Sodium was determined for all ash analysis samples (per cent of peat ash) and for all dry analysis samples (ppm of dry peat).

The sodium contents for the ash samples range from 0.03% to 6.51% and average 0.91% (n = 927).

The results for the dry samples range from 10 ppm to 3680 ppm and average 297 ppm (n = 1316).

Sodium levels for 1977-78 samples were two or three orders of magnitude greater than those in successive years. This may be due, in part, to the fact that much of the sampling during this period was performed on coastal peatlands that were exposed to salt spray from the sea.

MAGNESIUM

Magnesium was determined for all 1977 ash analysis samples (per cent of peat ash) and for all dry analysis samples (ppm of dry peat).

The magnesium contents for the ash samples range from 0.4% to 8.0% and average 4.2% (n = 131).

The results for the dry samples range from 40 ppm to 16 700 ppm and average 1014 ppm (n = 137).

To reduce costs, the analysis of ash samples for magnesium was discontinued after 1977.

PHOSPHORUS

Phosphorus (per cent of peat ash) was determined for all 1977 ash analysis samples.

The phosphorus contents range from 0.01% to 2.9% and average 0.89% (n = 131).

Due to the low phosphorus content of the peat ash samples, this analysis was discontinued after 1977 to reduce costs. The analysis for phosphorus in dry peat is presented above.

BORON

Boron was determined for all 1977 ash analysis samples (per cent of peat ash) and for all 1977 dry analysis samples (ppm of dry peat).

The boron contents for the ash samples range from 0.01% to 0.49% and average 0.09% (n = 131).

The results for the dry samples range from 0.1 ppm to 4.1 ppm and average 1.0 ppm (n = 50).

Due to the low boron content of the peat ash samples, the analysis for boron was discontinued after 1977 to reduce costs.

MOLYBDENUM

Molybdenum (per cent of peat ash) was determined for all 1977 ash analysis samples.

All determinations produced molybdenum values of less than 0.01%, and thus the analysis was discontinued after 1977.

MANGANESE

Manganese was determined for all ash analysis samples (per cent of peat ash) and for all dry analysis samples (ppm of dry peat).

The manganese contents for the ash samples range from 0.01% to 1.71% and average 0.22% (n = 926).

The results for the dry samples range from 1 ppm to 705 ppm and average 43 ppm (n = 131).

Anomalous manganese values were found in Bog 661 near Lynnfield, which is a known bog manganese occurrence.

NICKEL

Nickel was determined for all ash analysis samples (ppm of peat ash) and for all dry analysis samples (ppm of dry peat).

The nickel contents for the ash samples range from 10 ppm to 1400 ppm and average 100 ppm (n = 927).

The results for the dry samples range from 1 ppm to 1000 ppm and average 10 ppm (n = 1033).

It should be noted that the detection limit for the 1977 ash plasma analysis was 100 ppm, and most nickel values were reported as less than 100 ppm. Nickel content was below the detectable limit in one-third of the dry analysis samples; thus, the average and range of nickel values reported here are based on only those samples that had detectable levels.

Anomalous nickel values were found in Bog 497 near Maybrun, which is near a known nickel occurrence.

COPPER

Copper was determined for all ash analysis samples (ppm of peat ash) and for all dry analysis samples (ppm of dry peat).

The copper contents for the ash samples range from 16 ppm to 1106 ppm and average 149 ppm (n = 927).

The results for the dry samples range from 1 ppm to 615 ppm and average 9 ppm (n = 1234).

It should be noted that the detection limit for the 1977 ash plasma analysis was 100 ppm. Most copper values were below the limit of detection.

LEAD

Lead was determined for all ash analysis samples (ppm of peat ash) and for all dry analysis samples (ppm of dry peat).

The lead contents for the ash samples range from 1 ppm to 2618 ppm and average 215 ppm (n = 926).

The results for the dry samples range from 1 ppm to 1420 ppm and average 14 ppm (n = 1098).

It should be noted that the detection limit for the 1977 ash plasma analysis was 100 ppm, and most of the lead values were below this detection limit.

Lead values for the 1977-78 dry analysis samples were higher than those for successive years. The sampling area during this period was in the northeastern part of the province. The fallout or atmospheric pollution from the Pb-Zn smelter at Belledune may be partially responsible for the high values.

Anomalous lead values were found in Bog 813 near Dominion No. 1 and also Bog 770 near Deadwater Brook, both of which are known lead occurrences.

ZINC

Zinc was determined for all ash analysis samples (ppm of peat ash) and for all dry analysis samples (ppm of dry peat).

The zinc contents for the ash samples range from 21 ppm to 11 500 ppm and average 604 ppm (n = 927).

The results for the dry samples range from 1 ppm to 250 ppm and average 16 ppm (n = 1249).

Anomalous zinc values were found in Bog 815 near Cobbler Sexton, which is a known zinc occurrence.

VANADIUM

Vanadium (ppm of dry peat) was determined for selected 1977-78 dry analysis samples.

The vanadium contents range from 1 ppm to 71 ppm and average 11 ppm (n = 166).

It should be noted that in 276 samples vanadium was below the detectable limit. The values given above are only for those samples that had detectable levels. For this reason, the determination of vanadium content was discontinued after 1978.

Table 15 outlines the years in which specific analyses were carried out and the laboratories that completed are work.

TABLE 15.
ANALYTICAL LABORATORIES AND YEAR(S) OF ANALYSES

	Ash Type	Lab.	Dry Type	Lab.
MC1	77-81	PS	77-81	PS
MC2	77-81	PS	77	PS
BD1	80-81	PS	78-81	PS
BD2	80-81	PS	-	-
GCV	77-81	RPC		
AFCV	77-81	PS		
S	77-81	RPC	77	AAS
Volatiles	77-81	RPC		
Ash %	77/78-81	RPC/PS		
Ash Melt. Pt.	77	RPC		
Tot. C	77-79, 81	RPC	77	RPC
Tot. N	77-81	RPC	77	AAS
Tot. P	78-81	RPC		
Cl	77-80	RPC	77-79	AAS
Avl. N	78-81	RPC		
Avl. P	78-81	RPC		
Sulphate	77	RPC		
Silica	77	RPC	77	AAS
Sol. Silicon	77	TSL		
Fe	77	TSL	78-81	AAS
	78-81	DNR		
Al	77	TSL		
Ca	77	TSL	77-81	AAS
K	77	TSL		
	78-81	DNR	77-81	AAS
Na	77	TSL		
	78-81		77-81	AAS
Mg	77	TSL	77-81	AAS
P	77	TSL	77	AAS
B	77	TSL	77	AAS
Mo	77	TSL		

TABLE 15. (CONCLUDED)

	Ash Type	Lab.	Dry Type	Lab.
Mn	77	TSL	77-81	AAS
	78-81	DNR		
Ni	77	TSL	77-81	AAS
	78-81	DNR		
Cu	77	TSL	77-81	AAS
	78-81	DNR		
Pb	77	TSL	77-81	AAS
	78-81	DNR		
Zn	77	TSL	77-81	AAS
	78-81	DNR		
U	77	TSL		
	78-79	AEoC	78-79	AEoC
V			77-78	AAS
C	78-80	MAL		
H	78-80	MAL		
N	78-80	MAL		
O	78-80	MAL		

RPC = Research and Productivity Council, Fredericton
DNR = N.B. Department of Natural Resources, Mineral Resources Branch, Soils and Minerals Lab. (Denise Connors)
TSL = Technical Services Laboratories, Ottawa (subcontracted by RPC)
AEoC = Atomic Energy of Canada
MAL = Micro-Analysis Laboratories (subcontracted by RPC)
AAS = Atlantic Analytical Services
PS = Project Staff
MC = Moisture Content
BD = Bulk Density
GCV = Gross Calorific Value
AFCV = Ash-free Calorific Value

APPENDIX 6

Age Dates

AGE DATING

In September 1977, sample cores were recovered from two peatlands in northeast New Brunswick by Erkki Korpijaakko. Two subsamples from each core were submitted to Brock University for radiocarbon dating. The uppermost subsample at each site was taken at a depth in the peat layer corresponding to present-day mean sea level. The lower sample was from near the base of the deposit.

It was known that the land mass in the region was subsiding in relation to sea level. However, the rate of subsidence was not well known. Since the basal layers of the peat deposits show no evidence of salt water vegetation, it was assumed that the basal layers of the peat had formed in a fresh water environment. Thus, the sea level at the time would have been at a lower elevation than the base of the deposit. By determining the age difference between the upper and lower samples, the rate of subsidence can be calculated by using the depth difference of the two samples.

The samples from Bog 530 indicate a rate of relative sea level rise to be 17.5 cm/century. The samples from Bog 532 indicate a rate of 5.4 cm/century. However, if we assume the basal sample on Bog 532 was 2 m above sea level at the date given (a reasonably valid assumption when the depth from present sea level to the base of the deposit is compared for the two bogs), then the rate is 11 cm/century.

The same information has also been used to calculate rates of peat accumulation. The results show rates of accumulation of 0.54, 0.92, and 1.75 mm/yr and clearly indicate that peat must be considered a nonrenewable resource in all but a geological time scale. The remaining sections of this appendix outline the derivation of these results.

RADIOCARBON SAMPLES BGS 518 AND BGS 519

LOCATION: Latitude - 47°40'30"; Longitude - 64°45'40"

Site F200S on Bog 530 (see peatland map P40) at Pokemouche, Gloucester County, New Brunswick.

STRATIGRAPHY AT SAMPLING SITE

0-100 cm	*Sphagnum* peat humification	H2
10-120 cm	*Sphagnum* peat humification	H3
120-150 cm	*Sphagnum* peat humification	H5
150-350 cm	shrubby-*Sphagnum* peat humification	H7
	SAND	

SAMPLE NO. BGS 518 (our No. 202/EK) was taken at a depth of 400 cm. This is approximately present-day mean sea level. It was dated at 250 ± 80 years.

INTERPRETATION

1) The age difference between the two samples is 2000 years. The depth difference is 350 cm (3500 mm). Therefore, the rate of peat accumulation is:

$$\begin{aligned} 3500/2000 &= 1.75 \text{ mm/yr.} \\ &= 17.5 \text{ cm/century} \end{aligned}$$

2) The basal sample was above sea level at the time of peat formation, while the upper sample approximates present-day sea level. Therefore, the calculation used in (1) shows that the minimum rate of relative sea level rise is 1.75 mm/yr (17.5 cm/century.

RADIOCARBON SAMPLES BGS 520 AND BGS 521

LOCATION: Latitude - 47°37'45"; Longitude - 64°48'40"
Site B2700E on Bog 532 (see peatland map P41) at Green Point, Gloucester County, New Brunswick

STRATIGRAPHY AT SAMPLING SITE

0-100 cm	*Sphagnum*	H1
10-120 cm	*Sphagnum*	H3
120-150 cm	*Sphagnum*	H5
150-350 cm	shrubby-*Sphagnum*	H3
350-400 cm	shrubby-*Sphagnum*	H4
400-450 cm	shrubby-*Sphagnum*	H5
450-500 cm	*Sphagnum*-*Carex*	H7
500-550 cm	*Sphagnum*-*Carex*	H8
	SAND	

SAMPLE NO. BGS 520 (our 204/EK) was taken at a depth of 340 cm, which is approximately present-day sea level. It was dated at 3710 ± 90 years.

SAMPLE NO. BGS 521 (our No. 205/EK) was taken at a depth of 530 cm, which is near the base of the bog. It was dated at 7230 ± 110 years.

INTERPRETATION:

1a) The age difference between the two samples is 3520 years with a depth difference of 190 cm (1900 mm). Therefore, the rate of peat accumulation is:

$$1900/3520 = 0.54 \text{ mm/yr.}$$
$$= 5.4 \text{ cm/century}$$

1b) While the surface layers of the peat are less compacted, we can also examine the rate of accumulation between the surface and the uppermost sample.

Thus: 340 cm (3400 mm)/3720 = 0.92 mm/yr.

2) The basal sample was above sea level at the time of peat formation. The upper sample approximates present sea level. Therefore, the same calculation used in (1a) indicates the minimum rate of relative sea level rise. If the basal sample was substantially above sea level at the time of peat formation (as would be anticipated from the regional interpretation of sea level fluctuations), then the rate of sea level rise would be correspondingly higher. For example, assume that the basal sample was 2 m above sea level at the radiocarbon date given. Therefore, the difference in sea level would be:

190 + 200 = 390 (3900 mm)/3520 yrs. = 1.1 mm/yr.
= 11 cm/century